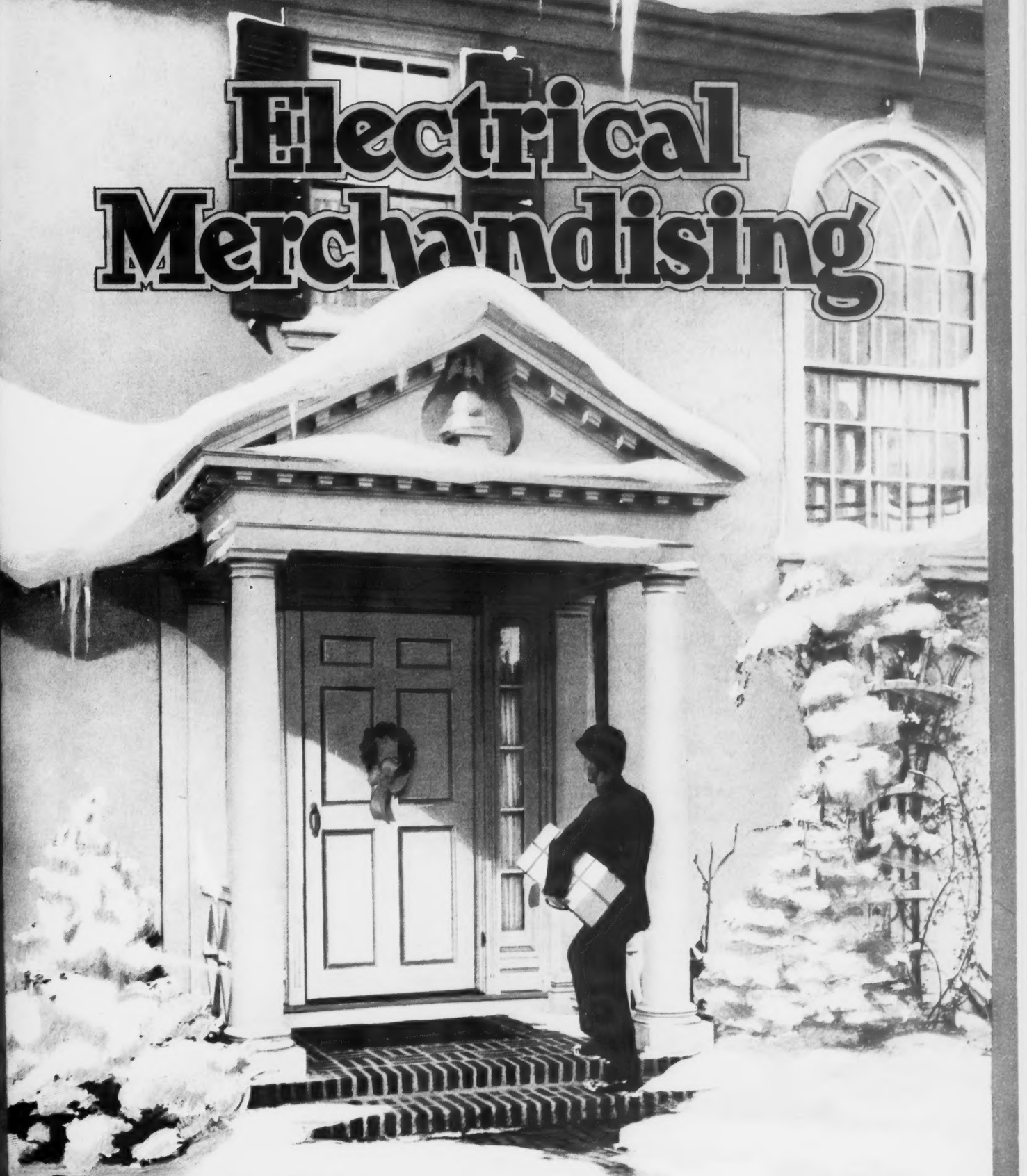
DEC 5 1922

December, 1922
25 Cents

A McGraw-Hill Publication

In Two Sections
Section One

Electrical Merchandising



After the gifts are delivered —
Make sure that they can be *used* conveniently.

Put in More Wiring!

J. Rieki



Look back over 1922 then plan ahead for 1923

SINCE BETTER BUSINESS never comes without special effort, the Edison Lamp Works the past year has given its Agents and representatives more magazine advertising than ever before. This page shows the full page advertisements, in colors, which were published in the Saturday Evening Post and Ladies' Home Journal. Month by month these messages of Better Light at Less Cost were read in several million homes and consumers prepared for your sales effort.

But we are looking backward only that we may look ahead. Profiting by the experience of the past year, taking stock of the opportunities before us, let us all—manufacturer, jobber, central station and Agent—resolve to make 1923 the *hardest selling* year. For our part, we are planning a still bigger and better advertising program.

EDISON MAZDA LAMPS

EDISON LAMP WORKS OF GENERAL ELECTRIC COMPANY

Electrical Merchandising, Dec., 1922. Vol. No. 28, No. 6. Published monthly, McGraw-Hill Co., New York, N. Y., $2.00 per year. 25 cents a copy.
Entered as second-class matter July 21, 1916, at the Post Office at New York, under the Act of March 3, 1879.

No. 1

OF A SERIES OF ARTICLES PICTURING THE INFLUENCE OF THE ENGINEER IN THE AFFAIRS OF THE WORLD. PRESENTED BY THE McGRAW-HILL COMPANY, INC., WHOSE PUBLICATIONS HAVE SERVED THE ENGINEER THROUGH HALF A CENTURY OF INDUSTRIAL PROGRESS

Coal Age

Electrical World

Electrical Merchandising

American Machinist

Industrial Engineer (Published in Chicago)

Engineering and Mining Journal-Press

American Machinist European Edition (London)

THE PLACE OF THE ENGINEER

WITHIN the memory of the elders of today this nation has turned from a land of scattered agriculturists to a compact unit of industrial production. And this in the face of a multiplying population with multiplying food requirements; in the face of increased acreage with increase output per acre.

¶ The change has come through the coming of a body of men known as engineers, who have delivered us from the consuming losses of chance by giving us the science of controlled and directed effort.

¶ These engineers have reduced the proportionate population of the farms through providing the farmer with mechanical means of replacing human labor.

¶ They gave industry impetus through providing it with equipment designed to construct the machinery and other devices required by the farmer, as well as to meet the enlarged needs of a congesting urban population.

¶ They have put machinery to do the drudgery of detail in office, store, factory, farm and home. They have put methods into management, facts where guess-work had been, knowledge where ignorance had taken toll.

¶ These engineers, of whom we hear so little and upon whom we are daily becoming more dependent, have carried out a successful and constructive revolution which has turned this country into the greatest of industrial nations.

¶ Today they are making themselves felt in the reconstruction of our standards of intercourse, in the improvement of both social and industrial laws, in the betterment of ethical and moral principles.

¶ They have earned this position of influence through having analyzed the purpose of life and through the evolution of a science of progress founded upon fact.

¶ You will do well to follow the activities of the engineer. Your future depends upon him, not merely your financial success but the revaluation of our world and its progress out of chaos into sound prosperity.

Power

Engineering News-Record

Bus Transportation

Electric Railway Journal

Ingenieria Internacional (Printed in Spanish)

Chemical and Metallurgical Engineering

Journal of Electricity and Western Industry (San Francisco)

McGRAW-HILL COMPANY · INC ·

NEW YORK

ENGINEERS OF BUSINESS

The Public Accountants

AND you will do well to consider another group of men whose activities are comparable to those of the engineer and whose work is the deduction of Facts from Figures, and the practical, timely and systematic application of those Facts in industry and business—the Public Accountants—Engineers of Business.

Organization, System, Method, Control, irresistible factors which determine the value of success, depend upon their service.

Theirs the power to make figures talk, telling of *things as they are.* They the guides, and the guards to progressive action. Thru their efforts, Ignorance, Gamble and Guess are eliminated; Mistakes, Inefficiency and Waste disappear; Profit is assured, and Loss prevented.

The cornerstone of Credit is their *Complete Audit.*

Their monthly *Balance Sheets* and *Operating Statements*, and above all, their *Business Budget*, are the safeguards against Over-Production, Over-Expansion and Over-Expenditure.

They have made *Cost Accounting* a science—and absolutely necessary to manufacturing success.

Inventory troubles are cleared by their simple *Systems.*

Sales Promotion is blind without their *Scientific Market Analysis.*

Tax Problems seem to settle themselves thru their practical knowledge of the law and their understanding of figures.

While their *Business Graphics* put before the executive a moving picture of his business activities.

ERNST & ERNST

AUDITS — SYSTEMS — TAX SERVICE

A National Organization with offices in 36 of the Largest Cities.

No. 2

OF A SERIES OF ARTICLES PICTURING THE INFLUENCE OF THE ENGINEER IN THE AFFAIRS OF THE WORLD. PRESENTED BY THE McGRAW-HILL COMPANY, INC, WHOSE PUBLICATIONS HAVE SERVED THE ENGINEER THROUGH HALF A CENTURY OF INDUSTRIAL PROGRESS

Coal Age

Electrical World

Electrical Merchandising

American Machinist

Industrial Engineer (Published in Chicago)

Engineering and Mining Journal-Press

American Machinist European Edition (London)

THE ECONOMY OF KNOWLEDGE

ONE of the greatest needs of the world today is for accuracy. Accuracy in its teachings, in its actions, in its beliefs. This can only come through a knowledge of economic facts.

¶ A man may learn to drive a nail precisely, but he is a dangerous man unless he knows the effect of the driving upon the materials into which the nail enters. Progress requires an exactness of information to meet the needs of this day when no man is independent of his fellows. Without this exactness, this accuracy, efforts at advancement are endangered, and progress becomes speculative.

¶ The great dependency of the world upon its industrial organization, not alone for comforts but for the very vitals of life, dictates that haphazard be replaced by knowledge.

¶ Industry exacts known values and processes for its operation. And there we have the potent reason for the ever-increasing supremacy of the engineer. But a few years ago, when demand paid whatever price was required, industry threw itself into a fury of production and thought this passing whirl-wind of effort was progress.

¶ The cost of this effort has put the world in pawn, and our pride of achievement has been pricked by the sharp point of reality. We *thought* we were right. It did not require the engineer to prove we were wrong. The inevitable backward swing of the balance did that.

¶ But it has necessitated the service of the engineer to show us wherein we were wrong; and how to set about reconstruction on the sound basis of facts.

¶ At a costly price industry now recognizes its need of the engineer; his judgments, his analyses, his technical knowledge founded on economic facts.

¶ And progress is now following the trails blazed by the engineer for the benefit of all men; for the engineer has proved the economy of knowledge.

Power

Engineering News-Record

Bus Transportation

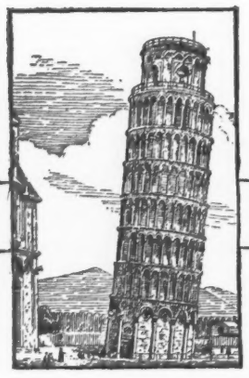
Electric Railway Journal

Ingenieria Internacional (Printed in Spanish)

Chemical and Metallurgical Engineering

Journal of Electricity and Western Industry (San Francisco)

McGRAW-HILL COMPANY · INC ·
NEW YORK



TOWER OF PISA

IPSE DIXIT *and* GALILEO

There was much learning but little real knowledge in Galileo's time (1564-1642). Aristotle was swallowed in bad Latin translations. Ipse dixit. No one checked him by what seemed vulgar, coarse experiment.

Galileo fought against the dead hand of tradition. He did not argue about Aristotle, but put him to the test. Aristotle led his readers to believe that of two bodies the heavier will fall the faster. Galileo simply climbed to the top of the Leaning Tower of Pisa and dropped two unequal weights. The "best people" were horrified; they even refused to believe the result—that the weights reached the ground in equal times.

"Look at the world, and experiment, experiment," cried Galileo.

The biggest man in the 16th century was not Galileo in popular estimation, but Suleiman the Magnificent, the Ottoman Emperor, who swept through Eastern Europe with fire and sword and almost captured Vienna. Where is his magnificence now?

Galileo gave us science—established the paramount right of experimental evidence. Suleiman did little to help the world.

Hardly an experiment is made in modern science, which does not apply Galileo's results. When, for instance, the physicists in the Research Laboratories of the General Electric Company study the motions of electrons in rarified atmospheres, or experiment to heighten the efficiency of generators and motors, they follow Galileo's example and substitute facts for beliefs.

General Electric

General Office Company *Schenectady, N.Y.*

95-027-H D



Concentrate

on a complete set of live sellers for quick turnover

This set of Boudoir Lamps has been selected by test as the six best sellers of a large assortment. As they have sold for others they will sell for you.

Complete
All packed in a carton ready for shipment

$27.00

Sold only in complete sets of six and the Max Schaffer guarantee of quality and workmanship goes with every set.

Max Schaffer Company
31 West 15th St., New York

Max Schaffer
Company
31 W. 15th St., N. Y.

Please forward via .....

.....

.....complete sets of the Max Schaffer assorted Boudoir Lamps.

Name.....

Address.....

.....

.....

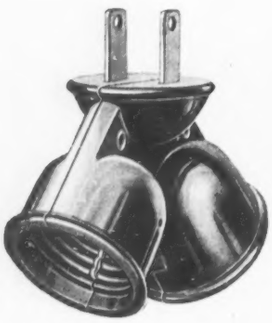
Again Bi-Lite Sets the Pace!

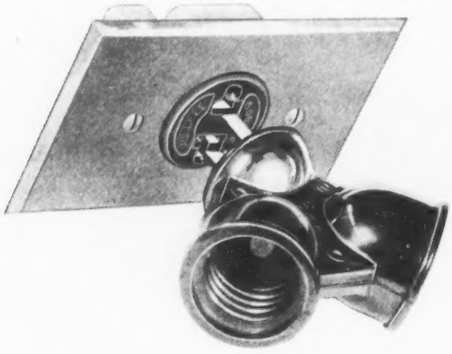
The second number of the BI-LITE Line of Multi-Sockets, known as No. 90 Q. D. (quick detachable) will be ready for orders about December 15th-Jan. 1st.

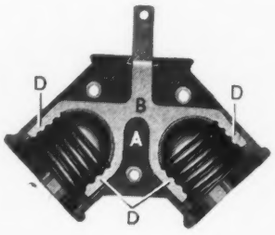
BI-LITE No. 90 Q. D. meets a long established but unsatisfied demand for a two-way socket that can be used with slotted wall or base receptacles having standard parallel slots.

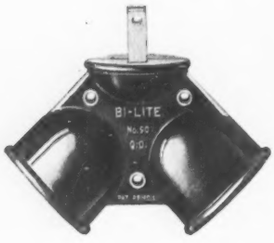
This BI-LITE can also be used with socket type receptacles by simply slipping one half of a separable plug over its parallel blades, as shown.

BI-LITE No. 90 Q. D. can well be called the universal Multi-Socket.

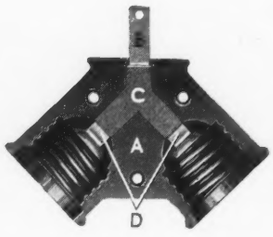












Examine No. 90 Q. D.'s interior. One piece stamped conductors **making loose contacts or blades impossible.** No amount of use can impair their mechanical or electrical efficiency. Like the No. 90—no brass shells, porcelain parts or internal connections are employed and No. 90 Q. D. is guaranteed direct to the consumer.

It is not recommended for downward vertical mounting.

BI-LITE commercial policy applies as usual. No sliding scale of quantities and discounts—one quantity and discount to jobbers and one to the dealer.

Here is an exclusive money making device, having ample patent protection to insure a stable commercial market. Order now and get in on the first shipments.

BETTS ELECTRIC & MFG. CORP.

342 Madison Avenue, New York



These are your Good-will days

FOLKS come into your store these days with smiling faces. They want to buy, and they are willing to be "sold." Their recollection of the sale will linger a long while. They buy, to give—because of their good-will toward a friend. They buy from *you* because of their friendly feeling toward your store Surely, these are *your* good-will days.

Add to the reputation of your store by selling only the devices that you know are good. Sell the licensed heating appliances because you know they never disappoint. They cost more but they are worth more. They carry the reputation of your store safely into the home. They safeguard your reputation because they never disappoint the customer.

It is Hoskins-Chromel heating elements which have made the licensed appliances good. It is these elements, and correct design, that have built the reputation of the licensed appliances. Hoskins-Chromel may not be known to your customers, but they do know the quality of the licensed appliances using it. You are buying good-will when you sell the licensed appliances having Hoskins-Chromel heating elements.

Sell Licensed Appliances Using Hoskins-Chromel

Hoskins Manufacturing Co. - Detroit

Canadian Representatives: Hiram Walker & Sons Metal Products, Ltd., Walkerville, Ont.

Manufacturers of High Grade Resistance Wire

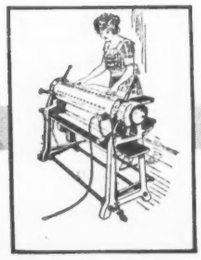


A One Cent Post Card Will Put



The Old Time Servant Girl whom 3,500,000 women are seeing each month in *Modern Priscilla, Pictorial Review* and *Good Housekeeping.*

There is a Western Electric housekeeping appliance to do speedily and economically each of the tasks she did slowly and laboriously.

The 

The Ironer even irons ruffles

One 

The easy, thoroughly Western Electric way of washing makes clothes last longer.

Name 

The Western Electric Dishwasher and Kitchen Table is useful always.

House

Western

Dollars in Your Cash Register

The great merchandising and retail businesses of this country have been built as a result of direct mail sales methods.

Why don't you use our Direct by Mail Department?

A post card to our nearest House will start your 1923 business off on the right foot toward bigger profits.

Western Electric Company

Offices in All Principal Cities

New York	Atlanta	Chicago	Kansas City	San Francisco
Brooklyn	Savannah	Indianapolis	Oklahoma City	Oakland
Newark	New Orleans	Detroit	St. Louis	Los Angeles
Syracuse	Birmingham	Milwaukee	Memphis	Seattle
Buffalo	Jacksonville	Grand Rapids	Omaha	Portland
New Haven	Richmond	Cleveland	Cincinnati	Spokane
Boston	Norfolk	Minneapolis	Columbus	Tacoma
Providence	Charlotte	St. Paul	Nashville	Denver
Pittsburgh	Youngstown	Duluth	Dallas	Salt Lake City
Philadelphia		Baltimore	Houston	

keeping Appliance Line Complete



Sew all day without fatigue on a Western Electric.



The Western Electric Vacuum Sweeper.

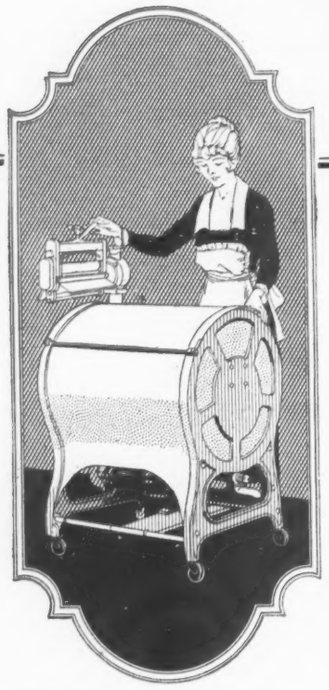


The Western Electric Crawford Range has a steady, even heat.

Electric

Last Week— 2800 Women bought THORS

—And Christmas Business Will Be Heavier



It will pay you to look into our proposition. The Thor is the fastest selling Electric Washing Machine on the market. Over 750,000 are now in operation. Ask about Thor Ironers and Vacuum Cleaners.

The tide of public favor has swept Thor into first place in its field. Why not swim *with* the tide?—it's easier and more profitable than against it.

The new all-metal Thor-32 with the Luminoid revolving-*reversing* cylinder is proving very popular. It is listed at $165, with a good dealer margin. The lowest priced Thor is now $115, which is successfully meeting all price competition.

Heavy advertising in newspapers all over the country is stimulating Thor interest everywhere. Our dealers are enthusiastic over results. Our factories are rushed to capacity. Already Christmas business points to record-breaking volume.

Get in step with Thor. We have an attractive, co-operative plan in which you will be interested. There's no time to lose—write or wire us today.

HURLEY MACHINE COMPANY
22nd Street *and* 54th Avenue · CHICAGO
New York, 147 W. 42nd St. · *Toronto*, 66 Temperance St.

The Largest Electric Washing Machine Manufacturers in the World



THOR-75
Automatic Electric Ironer
Has one-finger control. The motor does all the work—irons all kinds of clothes; shirts, dainty frilled dresses as easily as flat work. Let us send you details.

Thor Electric Washing Machine

Uninterrupted Service

In writing of their experience in the sale of the AUTOMATIC Electric Washer, the LANSING ELECTRIC ENGINEERING CO., of Lansing, Mich., had this to say:

> ''We have handled a large number of washers of various types and never have we been favored with unsolicited orders in the amount that have come to us on the AUTOMATIC.
>
> We might add that in all the machines we have sold we have yet to have one service call come to us, showing the machines to give UNINTERRUPTED SERVICE.''

As applied to washing machines, "uninterrupted service" means more than dependable and efficient service to the user—more than enthusiastic boosters for you.

It means that when the cash register bell rings, it registers "profit"—not an "advance payment" to take care of possible service calls.

The AUTOMATIC Washer is so mechanically perfect, so painstakingly constructed of high-grade materials that it requires only a minimum of service.

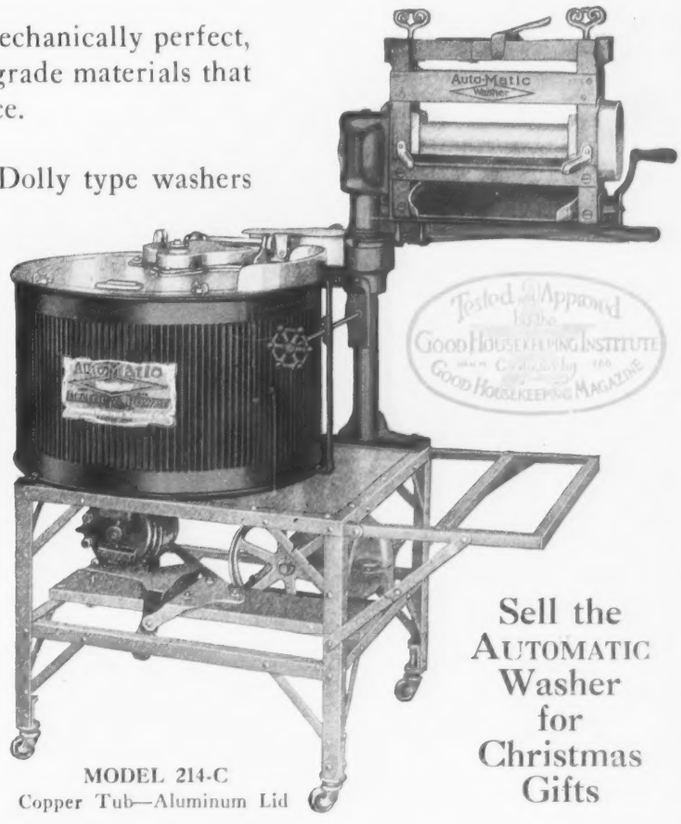
That's why it's the largest seller in Dolly type washers on the market, and why the most noteworthy sales records of 1922 have been made on the

AutoMatic Washer

The Washer with Distinctive Qualities

During 1922, the year of our largest distribution, several hundred more new accounts have been secured than in any previous year.

A post card will bring you details of this profitable, service-rendering washer.



MODEL 214-C
Copper Tub—Aluminum Lid

Sell the AUTOMATIC Washer for Christmas Gifts

AUTOMATIC ELECTRIC WASHER CO.

312 Third Street, NEWTON, IOWA

Start Now To Make

If you want to cash in on the Christmas business this year and step into 1923 with your merchandise stock trimmed for action, follow out this suggestion. Start right now and go over your stock carefully, picking out the slow-moving, profit-eating merchandise and make definite plans to sell it between now and Christmas.

Money will be spent more freely this month than at any other time of the year and it gives you an opportunity to clean up your miscellaneous assortment of washers, ironers and cleaners and start 1923 with one nationally known complete line of appliances. In other words, put your appliance department on a permanent and profitable basis. The most successful merchandisers agree that the only way to do this is to concentrate on one line such as Gainaday.

The Gainaday line is illustrated and described

Reversing Cylinder Washer

This all-metal Gainaday is the very latest in cylinder type construction and has been our standard make for many years. The eight-sheet capacity aluminum cylinder revolves and reverses in a copper tub tinned on the inside. The ¼ H.P. motor runs the strong mechanism which is entirely enclosed. Wringer is all metal, equipped with special device which insures absolutely even pressure at all times. Nearly 100,000 in use. Retails at $150.00. (Galvanized tub model $130.00).

Gainaday Oscillator

This is the highest grade, cabinet type, oscillating washer on the market and retails at the lowest price. Seven-sheet capacity copper tub is driven by a simple mechanism which in turn is direct driven by a powerful splash-proof motor. Automatic switch shuts off current in case of overload. Exclusive feature which prevents blown fuses and burned out motors. Equipped with same wringer as cylinder washer. The greatest washer value in the world. Use it as a "leader" and you will make more sales and bigger profits.





Gainaday

Household Appliances

Your 1923 Sales Plans

below. Pay particular attention to the Oscillator. Use it as a "leader" to build up a successful business. No washer on the market can compete with it as to quality and price.

By concentrating your efforts on the Gainaday line, you will simplify your correspondence, purchasing, accounting, servicing and selling, which in turn cuts your overhead and increases your profits.

Some desirable Gainaday territory is still open for live dealers and jobbers, so if you have the proper sales facilities and are desirous of linking up with a national organization with 30 years' experience and resources of over $4,000,000, write or wire for our 1923 sales proposition.

Do it today

GAINADAY ELECTRIC COMPANY

3014 Liberty Ave., Pittsburgh, Pa.

Suction Cleaner

This cleaner is a wonder. It is light, strong, simply constructed, and very efficient. Holds up the standard of other Gainaday appliances. Specially designed bag holds dust and dirt gathered up by powerful suction through nozzle which is 13 in. wide. Pistol grip handle equipped with trigger switch. Retails $48.50. Attachments $10.00 extra.

$48.50



Open End Ironer

The Gainaday is the most efficient and up-to-date Ironer made. A worthy companion of the two washers and cleaner. Has many important features —strong motor, convenient switch button, clutch to start and stop roll, smooth-faced ironing shoe, pedals for controlling shoe, 46-in. well-padded roll, open end, automatic gas and air mixer, and one wheel for adjusting pressure. Mechanism is strong and completely covered. No belts or pulleys. Retails $155.00. (Electrically heated $200.00).

$155.00



All prices quoted are east of Rocky Mts. and f.o.b. nearest warehouse.

Gainaday

Household Appliances



Take a tip from the waiter!

When you buy pie at a restaurant you are quite apt to buy pie a la mode.

The waiter suggests "a la mode" when you say "Pie." He knows you probably like it and the restaurant makes a big profit on the ice cream. That makes him solid with the boss.

You, the Electrical Merchant, can do the same thing. Whenever you sell a household appliance—lamp, iron, toaster, grill, washer, cleaner—suggest to your customer the use of a Bryant Dubl-duty socket or a Bryant No. 651 Appliance Switch Plug, or a Bryant KE Pilot-cap. Your customer probably needs a number of these accessories and you can make a clean profit on the sales.

Don't pass this up. Your business needs profits as much as the restaurant and you certainly are as keen a salesman as a waiter.



BRYANT
Dubl-Duty Socket
$1.35



BRYANT
Spar-Tap Socket
$1.00



BRYANT
No. KE $0.95



BRYANT
No. 651 $1.00



Caught ! !

How many men in your community will be caught fixing up an AEROBELL for Christmas?

Hundreds are looking for a beautiful and useful gift such as the AEROBELL, and all they need is a suggestion.

The AEROBELL is so well built and so efficient that your customers are always satisfied and ready to recommend it to others.

Why not write us regarding our attractive dealer proposition. Then you too can suggest a gift that lasts—The AEROBELL.

THE FOOTE-BURT COMPANY, 13070 St. Clair Ave., CLEVELAND, OHIO

Tested and Approved by the Department of Household Engineering, Good Housekeeping Institute, Inc. Conducted by Good Housekeeping Magazine

The Aerobell
REG. U.S. PAT. OFF.
The Scientific Way to Wash



"Take Home a Box of Six"

To Westinghouse Dealers

List a Box of Six among your suggestions for practical Christmas Gifts.

That suggestion made to a one lamp prospect usually results in a six lamp sale—that is, of course, if you are a Westinghouse dealer.

The Westinghouse Six Lamp Carton is equipped with a vending flap which, when opened, leaves two wrapped lamps exposed to view. Remove one lamp and another drops down to take its place.

Housewives like this convenient way of keeping extra lamps in the house.

W Westinghouse Lamps.

WESTINGHOUSE LAMP COMPANY
165 BROADWAY, NEW YORK, N. Y.

Sales Offices and Warehouses Throughout the Country
For Canada: CANADIAN WESTINGHOUSE CO., Ltd., Hamilton, Canada

Westinghouse





See that the Waffle Iron is Prominently Displayed in Your Store

The Westinghouse Waffle Iron is a really remarkable appliance. Few people realize its convenience and advantages.

These are so outstanding that approval is won almost instantly wherever it is displayed. Even the people who never cared much for waffles, enthuse over those made the Westinghouse way.

So give the waffle iron all the prominence you can. Make it a feature appliance in your store. We know it will pay you to do this because of the great success other dealers have had.

The average woman thinks that "waffles are just waffles" and has no idea of the great number of delicious dishes which can be prepared with them. Hold demonstrations and show how the Westinghouse Waffle Iron makes short cake, waffles, plain wafers, chocolate brownies, omelettes and many of the other favorite dishes.

Westinghouse Electric & Manufacturing Company
Mansfield Works, Mansfield, Ohio

Westinghouse





Shurvent is a Business-Getter for Dealers who are out after Fuse Sales

You should be getting a good proportion of the fuse business in your territory.

And perhaps you are!

But no matter what the volume of your fuse sales, we know you can increase it by selling Shurvent Fuses.

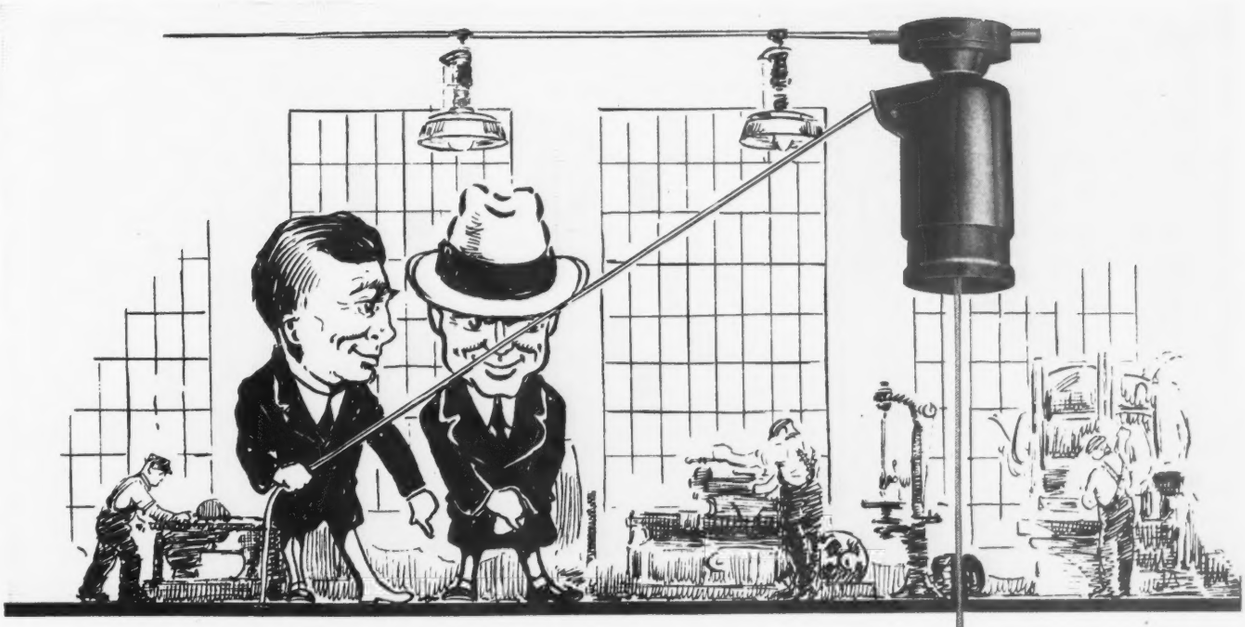
Their advantages are so obvious when pointed out to the buyer, that response is almost immediate.

Shurvent Fuses have a separate venting path through which the hot gases from the blown fuse pass harmlessly out. In Shurvent Fuses the ferrule never "freezes" to the casing. This saves the fuse.

Check up on your fuse business. If you are not sure that it is as large as it should be, get in touch with a Westinghouse Agent-Jobber and get him to show you both the fuse and the unique plans he has to help you sell it.

Westinghouse Electric & Manufacturing Company
Mansfield Works, Mansfield, Ohio

Westinghouse



You CAN Get More Industrial Lighting Business by Selling Westinghouse-Cutter Equipment

What is the biggest barrier to sales in industrial lighting today?

Nine dealers out of ten would probably answer, "High Installation costs." Almost the first question of the prospective buyer is, "How Much Will the Wiring Cost?"

The easy-to-wire feature of Westinghouse-Cutter Pulley-Socket Reflectors enables you to satisfy the prospect on the cost question and still do the job without sacrificing any of your profit.

It takes but three minutes to wire a Westinghouse-Cutter Pulley-Socket Reflector. They are up in a jiffy and up to stay. They are weather-proof, water-proof and rigid. They have interchangeable features enabling you to adapt the mode of light distribution to fit each particular job with the smallest number of stock parts.

Use Westinghouse Mazda Lamps with Westinghouse-Cutter Reflectors.

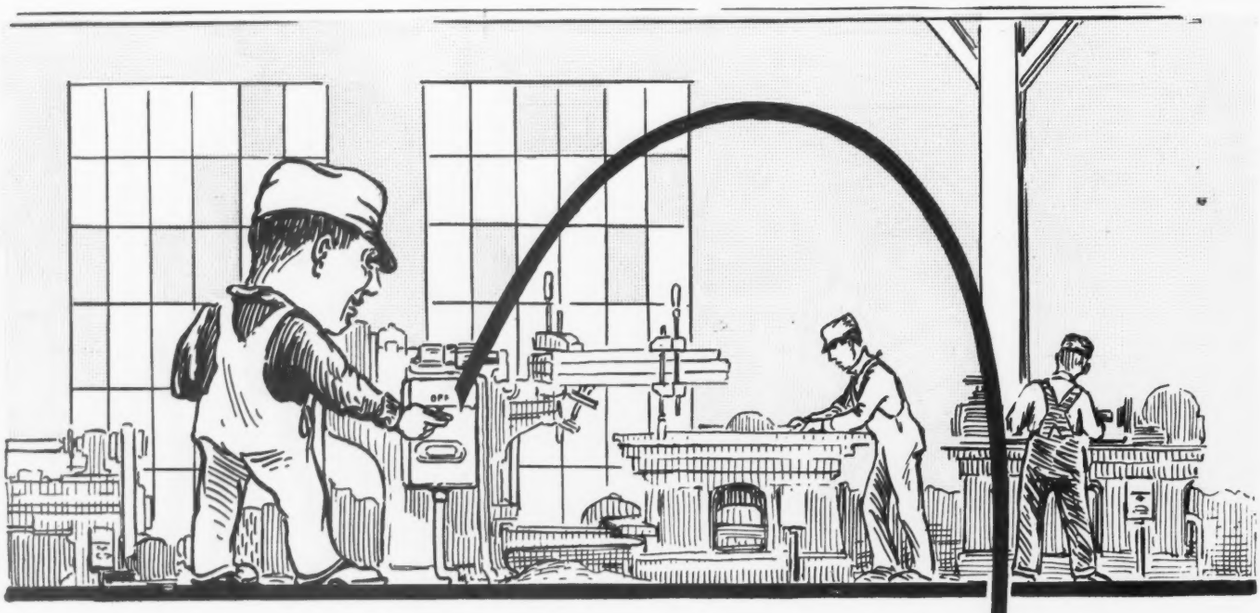
These advantages will spell greater success for you in industrial lighting.

Get in touch with our nearest Agent-Jobber at once for full particulars.



Westinghouse Electric & Manufacturing Company
George Cutter Works, South Bend, Ind.

Westinghouse



Why There Is a Growing Market for Westinghouse Safety Motor Starters

There are great sales possibilities in a field where a customer says, "In one year liability insurance dropped $162." This manufacturer had just installed Westinghouse Safety Motor Starters.

The great safety provided by these starters, to both the operator and the motor, is one reason for the rapid increase in their sale.

Free advisory service given by Westinghouse Safety Switch Specialists is another stimulus to this business. You, as well as your customers, are invited to take full advantage of this assistance.

The WK-10, illustrated, is for motors up to 2 hp. Other types are made for motors up to 15 hp.

A substantial safety motor starter business is waiting for the enterprising dealer. Let us help you.



Westinghouse Electric & Manufacturing Company
East Pittsburgh, Pa.

Westinghouse



The Denver Co-operative League's Civic Christmas Tree

A shining example of co-operation in civic development in the United States, was the electrification of the Civic Center in Denver during the holidays.

Ornamental lighting standards were clothed with evergreens and the lamps were changed to red and green, while the Greek theatre and the Voorhies Memorial were artistically draped to take full advantage of the effective lighting.

The central feature in the display was a 70-foot Christmas tree illuminated with 1,800 vari-colored lamps and surmounted with a dazzling white star.

The Denver Gas and Electric Light Company made the installation, and the Electrical Co-operative League of Denver supported the movement as part of its civic development program, with T. O. Kennedy, the League chairman, taking an active part in producing the effective display.

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And After the Electrical Gifts
Are Unpacked

Follow Up Your Christmas Appliances and Sell the Wiring

that will put them into
daily convenient service

WHILE the gift appliances are still *new toys,* people are most eager to use and enjoy them and to show them off. Demonstrate the need of more convenience outlets promptly and they will say "Go ahead."



Every Home Needs More Outlets

Here's Wiring Business Waiting for Your Call!

THERE is hardly a home into which electric gift appliances will go this year that does not need *more outlets* to make their use more convenient and satisfying. So here's a chance for a wiring job in every home where you sold gift appliances. Strike while the iron is hot!

Electrical Merchandising
The Monthly Magazine of the Electrical Trade
With which is incorporated ELECTRICAL MERCHANDISE

Volume 28 | December, 1922 | Number 6

Merchandising Costs—What Are They? Let's Find Out!

LIVELY discussion throughout the whole industry has followed on Mr. Gilchrist's French Lick and White Sulphur Springs papers, reported on pages 65 to 70 of our November issue.

In these addresses, we think Mr. Gilchrist has done an outstanding service to the industry and to the business of merchandising electrical appliances—both by his clear statesman-like exposition of central-station policies affecting the independent dealer, and by his courageous citing of cost figures on central-station merchandising in Chicago and in eight other cities.

In studying these tables of central-station selling cost, however, it must be evident that many energetic individual dealers can merchandise and are merchandising more intensively and efficiently than do the great central-station departments reported on. It will not do for any dealer merely to accept the selling cost figure of the big central-stations—37½ per cent—as a measure of his own selling expense. Instead, he must find out what it costs to sell *in his own store and in his own town*. And then we shall need a compilation of many such sets of figures on the cost of selling in enterprising dealers' stores all over the country. And in some of the smaller central-station merchandise departments, as well.

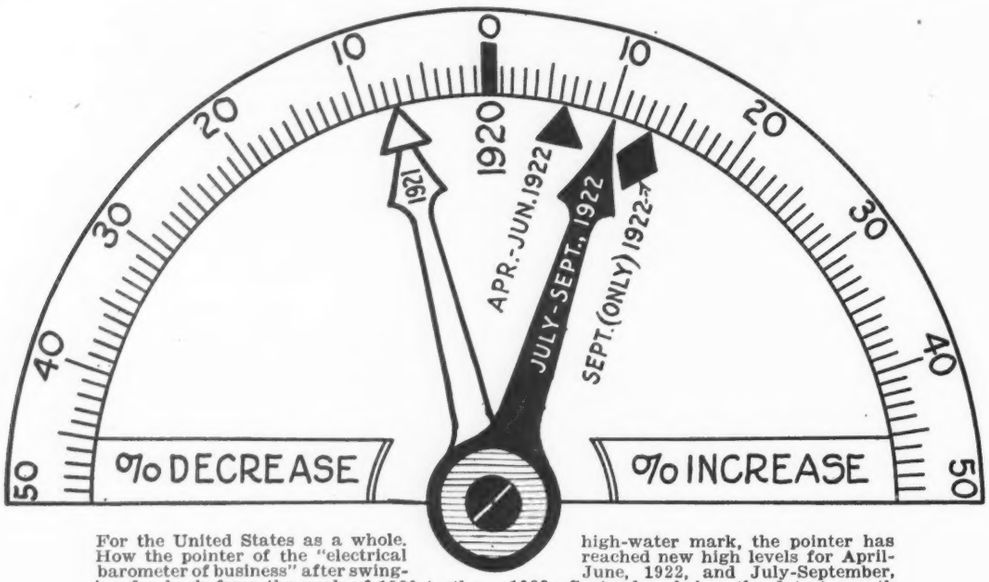
Some of the manufacturers of electrical appliances have been aroused to protest at the figures in the Gilchrist paper, declaring the selling costs reported to be excessive. Yet both these manufacturers and Mr. Gilchrist himself are really arguing to the same point, as we see it—to wit, that the selling costs revealed by the survey are unnecessarily high. Undoubtedly they are high and they can be reduced by increasing the efficiency of selling and by speeding up turnover. To find what the reasonable selling cost of the efficient store really is, will take thorough study and more figures on costs than have yet been presented.

AS a fundamental proposition, we submit that it is the duty of the electrical trade to lay down its wonderful merchandise in customers' homes at the lowest price possible, consistent with intelligent and effective selling. To that end every degree of merchandising efficiency must be invoked. Efficient selling being accomplished, the next problem before us is to learn what fair selling costs are in the different kinds of stores (dealer and central-station) where electrical goods are sold. The topic is one of chief importance to the retailers themselves. The manufacturers and the jobbers can also help by digging out and presenting facts on their customers' businesses. And *Electrical Merchandising* offers its facilities and its pages to help in every way in getting the facts before the industry.

Mr. Gilchrist's figures make an important initial contribution of valuable data to the study that is before us. We shall need other similar studies from manufacturers, jobbers and retailers. The main care must be to *get at the facts* and *all the facts!*

What is the cost of selling electrical merchandise?

Let's find out!



For the United States as a whole. How the pointer of the "electrical barometer of business" after swinging far back from the peak of 1920 to the low levels of 1921, is now moving rapidly to the right. Having passed the 1920 high-water mark, the pointer has reached new high levels for April-June, 1922, and July-September, 1922—September being the latest month for which the compilation of figures has been completed as we go to press.

Electrical "Barometer of Business" Points to Coming Prosperity

How the Increasing Production and Use of Electricity Give Striking Evidence of the Approach of New High Levels of General Industrial and Business Activity During 1923

By THEODORE DWIGHT
Society for Electrical Development, New York City

ELECTRICAL energy is the sole commodity which is created and measured only as it is put to useful work.

This fact, with the knowledge that electricity is used more than any other form of power in industry, makes the monthly figures of energy generated by public utilities in the different states of the Union probably the most sensitive barometer of business conditions and trend that is available. Electrical current is also used in operating street cars carrying wage earners to and from their work to the extent of several billion fares annually.

The U. S. Geological Survey secures figures monthly from the utility companies generating 95 per cent of the total output and this data has been used as the basis for the accompanying study.

The chart opposite divides the country into ten sections, arranged as far as practical in groups representing similar industries and natural resources.

On the dials shown, the centrally located zero (0) in each case represents the condition in 1920 which has been selected as a base value because of the decided industrial activity during that year. The arrows and triangles denote the percentage of change from the 1920 figures for the corresponding period (the second and third quarters) of 1921 and 1922. In other words 1920 is the datum point for each dial-pointer.

The High Level of 1920

The normal development of the country should make the output of each successive January higher than the previous record in all industries. In the business prosperity of 1920, the electrical output soared to new high figures, though toward the end of that year a decided recession started—this falling off continued through most of 1921 and the total current generated for that year did not greatly exceed the record of 1919.

Domestic consumption of electricity does not decrease; in fact its advance is constant, owing to the increased member of wired houses and to the introduction of millions of labor-saving appliances in homes.

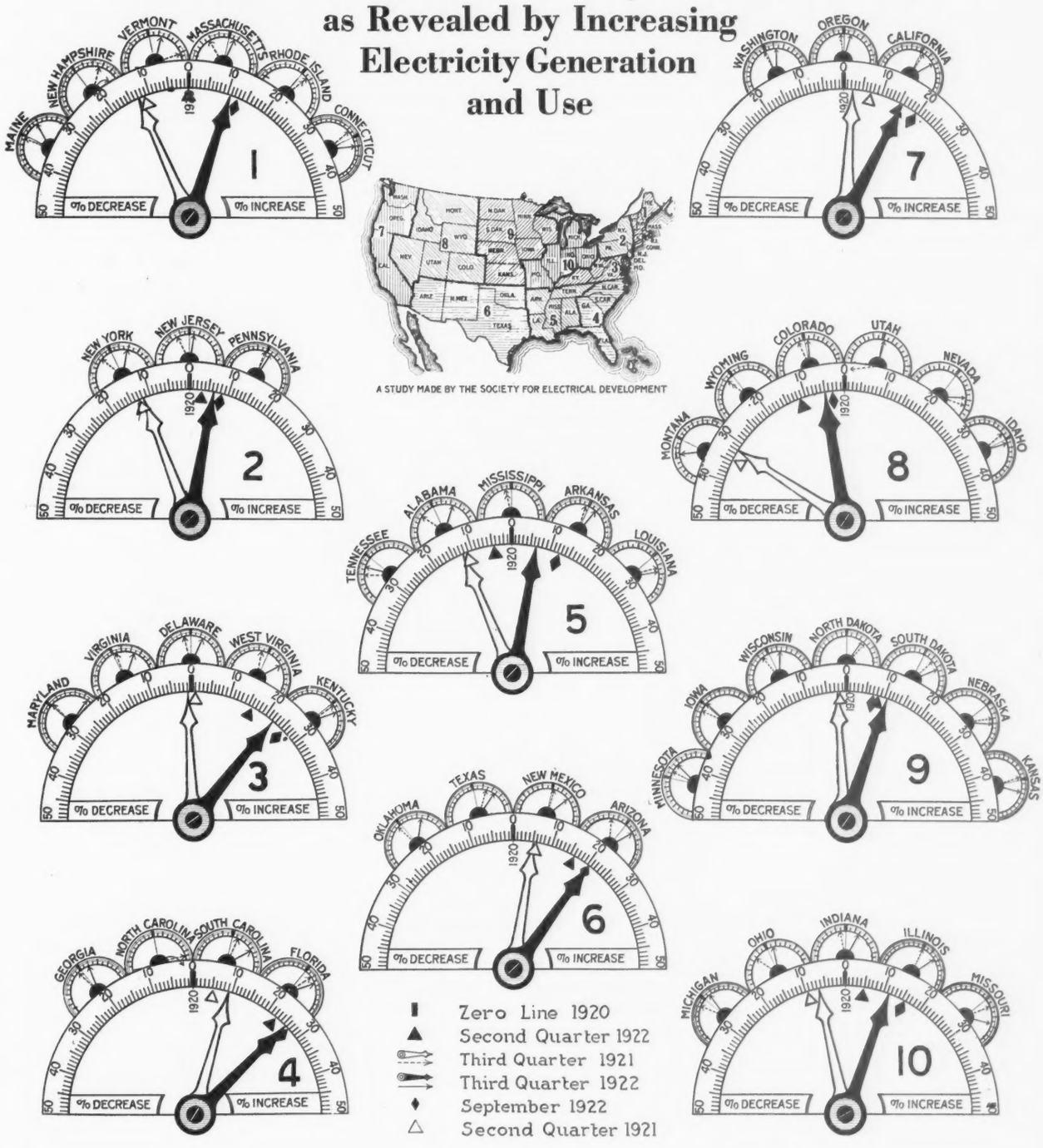
Therefore, when we have an actual drop in total output, such as that shown in 1921, it is evidence of the disastrous idleness in industry through which the country has passed.

Study of the monthly and quarterly changes registered in this new barometer of business shows a gratifying improvement during the present year and in the second and third quarters—a consistent improvement in all parts of the country—though its extent varies in different states.

A careful study of the separate state dials, and reference to the data showing principal industries and

(*Continued on page* 64)

The Return of Business Activity in Each Section as Revealed by Increasing Electricity Generation and Use



The Pointers for Each Chart Compare the Volume of Business for the Second and Third Quarters of 1921 and 1922, with the Previous High Levels of the Boom Year of 1920

POINTERS that show the condition of business in each section of the country, and in each state. From figures comparing the output and consumption of electrical energy in each region, the movement of the corresponding pointer is traced. Note how in general the depressions of 1921 are now things of the past. Business activity has passed the previous high-water mark of 1920 and is now reaching into new high ranges for the second and third quarters of 1922.

Note, also, that the rates of recovery and of the progress of prosperity differ for each section and state. In general, however, the indications are for a high degree of prosperity and business activity for the coming year of 1923.

(*Continued from page* 62)

natural resources, will readily explain the condition in each state.

Take the states of Utah and Montana—both largely dependent on mining and stock raising. In Utah, mining is largely of low-grade copper ore and lead—Montana produces much copper from higher grade ores and also mines silver, gold and zinc. Montana has come back quicker than Utah because of the higher grade of the copper and its electrolytic refining. Utah's stock raising has been affected by the low price of wool and the advanced freight rates making the marketing of products difficult.

Hydro electric power has been the great developer of California and the other Pacific Coast States and this has more than offset the affect of the general business depression in 1921. The same explanation applies to other states having cheap power.

Attention might also be drawn to the improvement in states with large agricultural interests. This is shown in Divisions seven and eight of the chart.

The improvement in the iron and steel industry is clearly shown in the improved conditions in Pennsylvania, Minnesota, Michigan and Alabama.

Oil and agriculture have helped to better conditions in Oklahoma and Texas and mining has been a factor in Arizona, Nevada, and Michigan—the latter state being helped also by increased building which has improved the market for lumber.

Finally, a careful ananlysis will justify the prediction that barring strikes and other unnatural causes, improvement in business is assured in the future months, the coming months of the new year of 1923!

It is the purpose of the Society for Electrical Development to issue further analyses from time to time.

Population, Valuation, Kw.-hours Generated, and Principal Industries of the States of the Union

State and Sections	Population	Assessed Valuation State (Thousands)	Sept., 1922, Kw.-Hr. Generated (Thousands)	Leading Resources and Industries
United States	105,273,049	.....	4,032,514	
Division 1	7,400,909	.....	303,213	Water power, textiles, m'f'g, shoes, paper.
Division 2	22,261,144	.....	1,080,313	M'f'g, agr., iron, steel, mining, textiles.
Division 3	7,862,182	.....	239,811	Agr., m'f'g, tobacco, commerce, mining.
Division 4	8,107,149	.....	180,867	Agr., tobacco, textiles, waterpower, cotton.
Division 5	10,027,390	.....	143,781	Lumber, cotton, tobacco, mining, m'f'g, steel.
Division 6	7,386,023	.....	113,209	Agr., livestock, lumber, oil, mining.
Division 7	5,566,871	.....	555,479	Water power, agr., lumber, mining, m'f'g.
Division 8	2,641,589	.....	194,349	Mining, stockraising, agr., smelting.
Division 9	11,772,261	.....	314,980	Agr., livestock, m'f'g, lumber, packing.
Division 10	22,247,531	.....	906,512	Agr., mining, m'f'g, steel.
Division 1:				
Maine	768,014	$637,403	33,759	Water power, lumber, shipb'ld'g, textiles.
New Hampshire	443,083	511,457	12,326	Water power, agr., quarrying, m'f'g.
Vermont	352,428	260,894	13,568	Water power, tobacco, textiles, shoes, m'f'g.
Massachusetts	3,852,356	7,276,334	144,992	Tobacco, textiles, shoes, shipb'ld'g, m'f'g.
Rhode Island	604,397	.....	37,334	Textiles, manufacturing, metals.
Connecticut	1,380,631	1,464,602	61,234	Water power, tobacco, agr., m'f'g, copper.
Division 2:				
New York	10,385,227	14,850,980	617,353	Water power, agr., mining, m'f'g, commerce.
New Jersey	3,155,900	3,254,964	93,843	Iron and zinc, agr., quarrying, m'f'g, textiles.
Pennsylvania	8,720,017	9,391,039	369,117	Mining, steel, agr., m'f'g, textiles.
Division 3:				
Maryland	1,449,661	1,555,226	42,122	Agr., canning, shipbuilding, m'f'g, commerce.
Virginia	2,309,187	.....	51,887	Tobacco, agr., lumber, shipping, m'f'g.
Delaware	223,003	.....	7,188	Grain, fruit, manufacturing.
West Virginia	1,463,701	1,579,594	113,001	Waterpower, mining, natural gas, agr.
Kentucky	2,416,630	.....	25,613	Tobacco, agr., m'f'g, flour mills.
Division 4:				
Georgia	2,895,832	1,346,883	53,425	Water power, lumber, tobacco, fertilizer.
North Carolina	2,559,123	2,579,076	40,875	Water power, grain, textiles, sugar, tobacco.
South Carolina	1,683,724	448,223	74,663	Water power, agr., cotton, tobacco, grain.
Florida	968,470	.....	11,904	Agr., lumber, phosphates, fruits.
Division 5:				
Tennessee	2,337,885	1,649,524	41,550	Mining, agr., lumber, m'f'g.
Alabama	2,348,174	952,602	63,636	Water power, mining, steel, m'f'g.
Mississippi	1,790,618	765,198	5,417	Tobacco, grain, cotton, lumber.
Arkansas	1,752,204	.....	12,053	Agr., rice, cotton, grain.
Louisiana	1,798,509	1,698,564	21,125	Sulphur, cotton, lumber, sugar, shipping.
Division 6:				
Oklahoma	2,028,283	.....	23,111	Oil, agriculture, lumber.
Texas	4,663,228	3,370,470	74,037	Oil, lumber, livestock, cotton, grain, tobacco.
New Mexico	360,350	363,722	1,454	Agriculture, cattle.
Arizona	334,162	.....	14,607	Water power, cattle, mining, agriculture.
Division 7:				
Washington	1,356,621	1,177,239	106,782	Water power, grain, stockraising, shipbuilding.
Oregon	783,389	1,020,804	44,831	Water power, lumber, agriculture.
California	3,426,861	4,929,480	403,866	Water power, lumber, agr., mining, m'f'g.
Division 8:				
Montana	548,889	.....	81,561	Water power, mining, smelting.
Wyoming	194,402	438,150	3,216	Stockraising, agriculture.
Colorado	939,629	1,578,814	33,796	Water power, mining, agr., stockraising.
Utah	449,396	688,000	18,293	Water power, mining, smelting, agr.
Nevada	77,407	.....	3,276	Mining.
Idaho	431,866	506,603	54,207	Water power, mining, agr., sheep raising.
Division 9:				
Minnesota	2,387,125	2,084,287	67,446	Water power, mining, agr., lumber, m'f'g.
Iowa	2,404,021	.....	80,762	Water power, agr., livestock, m'f'g.
Wisconsin	2,632,067	.....	88,163	Wheat, flour, lumber, shipyards, m'f'g.
North Dakota	646,872	1,377,916	2,779	Agriculture, livestock, wheat.
South Dakota	636,547	2,064,602	4,796	Mining, livestock, wheat, milling, dairying.
Nebraska	1,296,372	.....	24,653	Livestock, lumber, wheat, packing.
Kansas	1,769,257	.....	46,681	Livestock, grain, packing, manufacturing.
Division 10:				
Michigan	3,668,412	5,320,000	185,859	Mining, agriculture, lumber, autos.
Ohio	5,759,394	10,672,277	260,289	Water power, mining, agr., m'f'g.
Indiana	2,930,390	.....	92,085	Agriculture, manufacturing.
Illinois	6,485,280	8,403,631	294,071	Mining, agr., slaughtering, steel, m'f'g.
Missouri	3,404,055	4,920,926	74,208	Mining, agr., cotton, tobacco.

Montreal Plans Elaborate 1923 Co-operative Program

At the well-attended second annual meeting of the Electrical Co-operative Association of the Province of Quebec, held at Montreal in October, a hundred members were present to hear the resumé of the past year's activities of the association, which were outlined by the association's president, K. B. Thornton, general manager of the Montreal Public Service Corporation. Mr. Thornton stated that the Power Companies of the Province of Quebec have found the work of the Association so satisfactory and promising that they have decided to increase thier contributions for the ensuing year by 25 per cent, to permit of expansion of the activities.

The following program of association activities has been schelued for 1922-23:

Modern "Electrical Homes" of two weeks duration in Outremont and East End or Outremont and St. Lambert; also in Quebec City and Sherbrooke.

A Modern Electrical Home of three months' duration open to the women three times a week from 2 to 5 p.m., where actual demonstration of the use of domestic labor saving appliances would be given by experts. This to be worked in co-operation with various women's organizations.

Electrically equipped car in conjunction with Better Farming Train.

Industrial Lighting Exhibit for about two weeks.

Organizing of High School Students' and School Teachers' visits to power plants.

Drive for better store illumination.

Co-operative advertising.

Further distribution of wiring plans and standard symbols.

Joint luncheons with architects and development of closer co-operation with them.

Co-operation with the Government in proper enforcement of the Licensing and Inspection Act throughout the Province.

Permanent electrical corner once a week in the local press.

Continuation and broadening of activities of the Trade Relations Committee.

Occasional social gatherings, theatre parties, etc.

Developing the Contractor-Dealers Association (one of the most important functions of the Association).

Organizing of Appliance and Fixture Sections.

Three or four Mass Meetings on proper methods of merchandising electrical goods, with lectures on salesmanship by outside speakers.

Drawing of departmental stores handling electrical work and goods into the work of the Association.

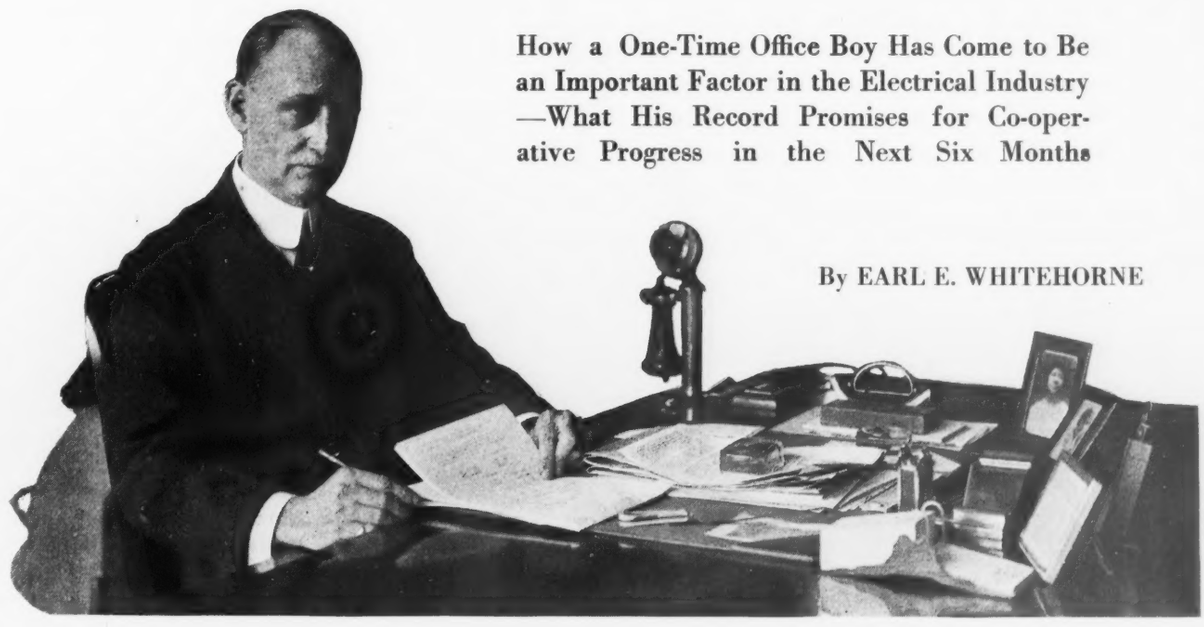
Better window-dressing.

Education of public on the value of electricity, through moving picture films.

Frank Smith—Worker and Diplomat

How a One-Time Office Boy Has Come to Be an Important Factor in the Electrical Industry —What His Record Promises for Co-operative Progress in the Next Six Months

By EARL E. WHITEHORNE



Frank W. Smith at his desk, where he is now working Sundays, Saturday afternoons and evenings until eight o'clock, so that he may give most of his days to the service of his industry as president of the National Electric Light Association.

EVERY year the National Electric Light Association has a new president. Each summer at the closing session of the big convention somewhere, we see the next big central-station man in line for this high honor, led to the platform and acclaimed as the new chief. Then we begin to read about his traveling around. This week he's been down to Atlanta talking to the Southeastern convention, then he is in Ottawa with the Canadians, then he is in Pennsylvania, then in Wisconsin, then in Boston, then in Iowa, then we read about some meeting in New York and next that he is doing the grand tour out to the Coast and back. "Pretty soft!" we say. "Pretty soft with a glad hand in every town and somebody to pay the bills and the same old speech all right in most cases because it is a brand new crowd."

What Leadership Costs

And so the president of the N.E.L.A. stampedes around the country enjoying all the broadening influence of travel, we think—learning the gracious art of oratory, and getting a fine rest from his regular job. He basks in the limelight like a royal duke, pulls all the strings and has everybody working for him, knows everything that is going on in the industry for one complete conspicuous cycle of the calendar, and then after being king at a convention, is placed at the head of the retired list so as to let him down easy. "Pretty soft! Pretty soft!" we say.

But here's another side of it. It is Sunday afternoon. Down at Fifteenth Street and Irving Place, New York, sits Frank W. Smith, vice-president and general manager of the United Electric Light & Power Company. The rest of us are playing on the golf course or maybe rolling down the broad highway, but Frank Smith is working. He isn't working because he prefers it as a Sunday sport nor yet because he isn't fast enough to run his central station in a six-day week. But the fact is that this year he is the N.E.L.A. president. He has been given a very big job, a big opportunity to do a great service to the electrical industry and he is enthusiastic over it and intent upon it. Therefore, in order that he may give lots of time to his work for the industry, he is compelled to find lots of other time in which to take care of his work for his own company, and so since his election as the chief executive of the N.E.L.A. he has spent many such Saturdays, and Sunday afternoons and evenings at his desk—that is, when he has not been off on some N.E.L.A. business.

The Problem He Faces

This side of the N.E.L.A. presidency we don't think about very often. And yet it seems to me that we ought to know something more about the man who holds this job this year. For it is an unusual situation we have and this president of the N.E.L.A. can do some very big things for us all if he is the right kind of man.

We have just come out of a period of business depression. We have gotten well started toward recovery and a rebuilding of prosperity. The different branches of the electrical industry are better organized today than ever before and more disposed to work together and get things done. They look to the N.E.L.A. for leadership in industry co-ordination as the largest and most powerful of all our co-operative associations. We have, already operating, a "Joint Committee for Business Development" that has been established by N.E.L.A. initiative and with N.E.L.A. support, to act as a general policy committee to guide a united movement to speed

up business recovery and promotion. And the big achievement of the year may be the actual practical realization of this old dream of getting all classes of electrical men together solidly behind some constructive program of common purpose and common interests.

There are divergent interests. There are old traditions to trip over. There are honest differences of opinion as to what should be done first and how. All these influences have got to be harmonized and guided into the path of progress before much will be accomplished and it is Frank Smith's job right now at this most critical time to do the guiding. Is he the kind of man that we can expect to measure up to a task like this? Is he temperamentally and by experience fitted for this opportunity? The answer is best found in this little sketch of what he has already done.

A Test of Diplomacy

Picture if you can a great city, a city like New York, we'll say. Operating in it is a great central-station company, serving this great city with direct current and aggressively following up all new opportunities for business. In this city also is a smaller central station, generating alternating current, running down the same streets in many cases and though concentrating its activities largely in definite sections of the town and selling a.c. service against the other's d.c., nevertheless competing with them day by day for individual customers. Then consider that the big company and the little company were both owned by the same parent corporation, and you have a situation. What sort of a man would it take, would you say, to run the smaller company in peace and harmony with the larger, year in and year out?

It doesn't matter who the men might be at the head of the big company or how fair, how broadminded, how interested and friendly they are toward the little concern. In the ordinary day to day contact between the employees of competing central stations there would be so many points of conflict and so many opportunities for argument that it would seem impossible for any man to build that little company up from a small beginning into a great system, with everybody happy and the goose hanging high. You would naturally expect that on some blue



This group was photographed on the day that they opened the big Hell Gate Station, the realization of Frank Smith's dream of making his company one of the great power producers. From left to right they are: Frank Smith, H. Y. Hall, superintendent of Hell Gate Station and J. H. Strong, president of the International Association of Electragists.

November morning some twenty odd years ago, somebody high up would have decided to "can" the little company and merge it into the larger one and stop all possible sources of friction. And presto, there wouldn't have been any little central station in that city any more.

And this is exactly the situation that has existed in New York City. The Consolidated Gas Company for years owned both the New York Edison Company, the "big d.c. central station," and the United Electric Light & Power Company, the "little a.c. central station."

Quite recently the Edison Company has owned the controlling interests by stock ownership in the United Company. Frank Smith has been the executive of the United. From a small company serving a few customers, it has grown to a great system, serving the population of Manhattan Island, with its distributing mains extending from the Battery to the Harlem Ship Canal, and with its a.c. distributing system prevailing exclusively north of 135th Street.

The United Company has assumed the proportions and importance of a supplier of prime power, delivering high tension current to the companies operating locally in the Borough of Queens, the Borough of the Bronx and in Westchester County. The giant $20,000,000 Hell Gate Station recently opened with such interest throughout the industry is the crowning accomplishment to date of the United Company.

Frank Smith is a central station operator and a business man, but before all else he is a human personality who can work with others in difficult relationships and get things done. I think that this is going to mean a lot to the electrical industry before we come to next summer.

His Career in Brief from Office-Boy to Vice-President

Frank Smith was born in New York state in 1867 and came to the big city at an early age and went to the public school there. In 1880—which made him thirteen years of age—he went to work as office boy for the United States Illuminating Company, which sold arc lighting. In 1883 he was made a general clerk and in 1889, when the United Electric Light & Power Company was formed, and succeeded the United States Company, Smith became paymaster. Two years later he was assistant auditor. Eight years later he was assistant secretary. The following year the Brush Electric Illuminating Company was founded and Frank Smith was secretary of that company also. In 1905 he stepped up to be secretary of the United company, and he is now vice-president and general manager.

His Broad Background of Commercial and Executive Experience

For forty-two years he has been in the same company, working his way up from office boy to chief executive, for as such he functions. He believed that a separate alternating current central station could render a valuable public service in the city of New York and develop into a large and profitable operation. His vision, his judgment, his tenacity, his persistent cheerful courage, his unflagging industry and above all his human understanding of the tactful art of co-operation have made it possible for him to build up this dream into a reality under competitive conditions which in any city would be extremely difficult. It is not hard to compete with a separate competing company, but to compete successfully with your own boss and steer clear of

the breakers takes a past master in conciliation and a high sense of justice and fair play.

Suggested the Campaign for Better Lighting

Frank Smith by instinct and inclination is a commercial man. For a number of years he has been chairman of the N.E.L.A. lamp committee, at the time when lamp development was moving so rapidly, and in very intimate contact with the manufacturers. For a time he was very much interested in an electrical jobbing business. His work in the United company threw him for years into close association with the contractors. Out of it has come a very well rounded contact with the industry that has built up for him a very balanced judgment with which to guide his present broader work for all of us. It was Frank Smith who brought to the executive committee of the N.E.L.A. last winter the suggestion for a national campaign to stimulate better lighting, that grew into the "More Business, Better Business" movement now under way, directed by the Joint Committee.

This movement has been so far in its formative period, gradually working out intra-industry relationships and fundamentals of organization. Much good work of definite worth has been accomplished, but the program comes into the hands of Frank Smith at a time when everything seems set to go and it is Frank Smith's ambition to see a full working plan perfected before his term of office ends and have that plan in operation throughout the industry, so that a great pressure of creative development is impulsing to all communities, backed by the harmonious co-ordinated support of central stations, manufacturers, jobbers, contractors and dealers, all working *e pluribus unum*, as they say out West on the silver dollars.

How the Man Works

It may not be possible for Frank Smith to achieve as much in the next six months as I know he hopes to, but I believe he is going to accomplish more than most men in the industry think possible today. He is unquestionably the man to do a job like this. He is ambitious. He has imagination and sees an opportunity while it is still far off and small. He is aggressive—with an It-can-be-done point of view. He has a most appealing personality, makes friends easily and is a splendid "mixer." He has an even disposition and his temper rarely can be ruffled. He is cheerful and sympathetic. He is a great worker, systematic and persistent with a great capacity to take things up and dispose of them and to keep many irons hot in the fire at the same time. That is a strong combination of good qualities.

Frank Smith is a good practical psychologist. No matter how small a man's job may be, he listens to his opinion with frank attention and full consideration. His attitude is always appreciative, and as a result he gets 100 per cent co-operation. He has a keen ability for sifting the good ideas of many men and putting them properly together. He has a rare gift of humor and the instinct of diplomacy. He is not an eloquent speaker, but he is forceful and understands exactly what he wants to say and calls a spade by its front name. He influences men not by fighting them but by conciliation and adjustment, taking the good points of both sides and putting them together. He is most approachable. His door is always open. Anybody who comes can see him.

"The Man for the Job"

Now, the work that the electrical industry needs done right now, is the kind of work that needs this kind of a man, in my opinion. We have great groups of different classes of electrical men that must be knit together into a broad progressive program of common purpose, if the great conceptions towards which we are all working are to be realized within our time. To do this, these different classes of men, with their diverging interests and dissimilar backgrounds must be brought closer together in confidence and understanding.

This broad program can only be accomplished by establishing a more sympathetic human contact between the chief men of these groups, through getting them personally to work on some appealing project in which they will be willing to reconcile the secondary differences for the promotion of the more important opportunity.

The president of the National Electric Light Association is in the best possible position to act as the leader in such a trend, and it is to such a purpose that Frank Smith has set himself, hoping that some real and permanent advance in industry co-operation may be effected during his administration. I believe that he has already accomplished much toward this good end and that he has the capacity and the diplomacy and the sound business sense to render a great service to the entire industry along this line of constructive development, with its great possibilities, before next June.



Not only does Frank Smith preach electricity—he uses it. He is developing water power from the little stream that flows through his country place at Tompkin's Corners, N. Y., and soon will have every modern convenience operated by power from his own water wheels both in his house and on his land.

Hammond's "Electric Shop on Wheels"

Aggressive Washing-Machine and Appliance Sales Methods Used by the Oltz Concern

By C. H SUNDBERG

THE General Engineering & Sales Company, of Hammond, Ind., is perhaps the first electrical dealer to take his store to the customer, if the customer could not come to the store.

Casting about for some means for shortening the time necessary to make sales of washing machines, which would at the same time give them good advertising, this firm finally hit upon the idea of a demonstration motor truck.

A plain chassis was purchased from a local truck manufacturer, and a specially built body was placed on it. The total cost for chassis and body was in the neighborhood of $4,000.

Now when the salesman finds a prospect that cannot come to the store, he immediately gets the demonstration truck on the job, invites the prospect to come in and sit down in an easy chair, and proceeds to extol and demonstrate the virtues of the particular washer or other device his company is selling.

Can you imagine any woman turning down the opportunity to see what is on the inside of this big truck? Once inside, it is only a matter of salesmanship on the part of the demonstrator and the sale is made.

Sales can be completed more quickly in this way as there is no delay in ordering a machine out of stock to be sent out to the prospect's home; no going back over the territory again which wastes time.

The Travelling Electric Store as an Advertisement

This big truck is used for advertising purposes also. On Saturday or other nights, when crowds are usually down town, this big truck lumbers up and down the streets, and inasmuch as it is brilliantly lighted, it attracts no end of comment and attention.

The General Engineering & Sales Company, is energetically pushing the washing machine business in Hammond and its volume this year will probably exceed $35,000 on washers alone.

Prospects are secured by advertising, by getting the addresses of customers who come into the store, by personal solicitation, and by house-to-house canvassing. Present users who come into the store to make weekly or monthly payments, and owners who require service, are also prolific source of prospects.

This Hammond shop is strong for house-to-house canvassing and declares it is the best way to get a lot of prospects.

On rainy days and when the weather is inclement, they use the phone for hours at a time, securing many prospects in this way.

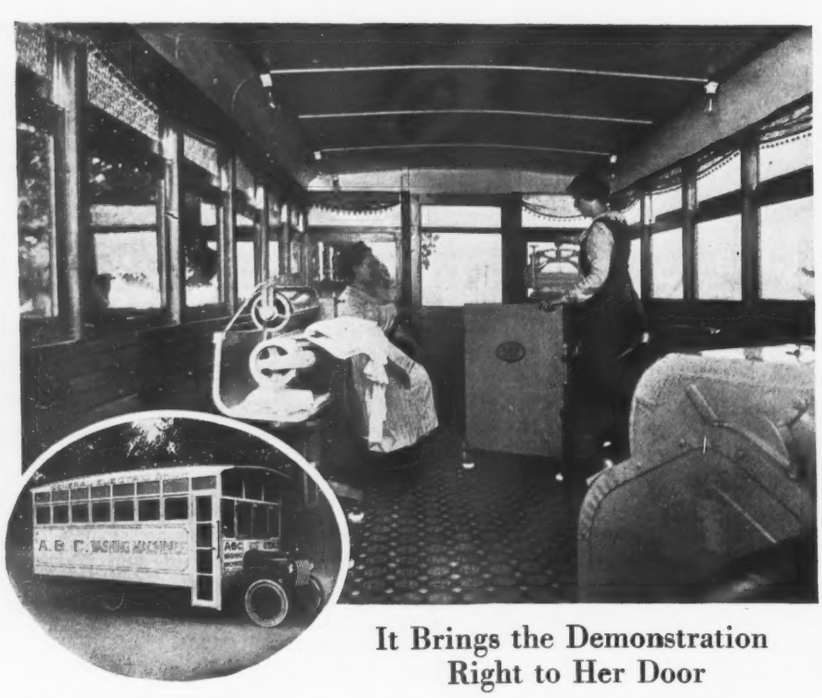
Their experience shows they can talk to prospects over the phone oftentimes better than they could face to face. In fact, they have actually sold washing machines to prospects over the phone, who never before had been approached by a salesman.

Telephone numbers are arranged alphabetically on cards by streets. The salesman then can take a certain block on a certain street and in a very short time make arrangements for personal calls or demonstrations. This materially lessens lost motion as the salesman has his work all cut out for him in one certain section of town.

When the office girl is not busy with her other duties she also uses the telephone to secure prospects.

Advertising in the newspapers also plays a prominent part in the company's sales program. Some advertising is carried every week and occasionally the company runs six or seven-column ads listing all the owners of the washers they sell. They also have a quantity of hand bills made of this same ad. These bills are used in the store by the salesman, and also distributed from house to house.

Prospects sometimes refuse to give the salesmen in the store their addresses fearing that they may be bothered with calls. When this occurs the salesman brings out one of these "owner" hand bills and tactfully inquires whether anyone of the caller's friends or neighbors are on the list. The careful salesman can



It Brings the Demonstration Right to Her Door

The "General Electric Shop" of Hammond, Ind., is now operating over its territory this attractive display car equipped with electrical devices for use in the home.

The body of the car is 18 ft. long, 7½ ft. wide and 6½ ft. high, inside measurements. It is painted yellow, and has the name of the shop and the machines demonstrated, in large letters on the sides of the bus, so that the car is itself an advertisement for electrical equipment and the company.

The car is fitted up with two washing machines, one of an oscillator type and the other a cabinet machine, an ironing machine, two vacuum cleaners, and an electric fan, besides the usual electric display lamps.

With this car two men are covering the city by sections, one man driving the car while the other canvasses the homes. When an interested housewife is found she has only to step into the capacious car at her door where the various machines can be demonstrated as thoroughly as in her own home or at the Electric Shop. In fact, any interested person may have the display brought to the door by simply phoning the company for an appointment. This does away with the old system of placing equipment in a customer's home until a decision had been made.

usually secure the address of the prospect in this manner, but he must be diplomatic and not let the prospect suspect that he is fishing for her address.

Often the general company is compelled to take in used washers in order to complete the sale for new equipment.

Used Washers Thoroughly Rebuilt

These machines are taken in to their shop, a competent man goes over them carefully and all necessary parts are ordered from the manufacturer. When these arrive, they are put on the machine, it is given a coat of paint and every effort is made to make the machine as mechanically perfect as possible.

The used machines are then advertised in the newspapers, and while "the house" makes a good profit for itself on these rebuilt washers, the prices of course are very attractive to the public.

The advertising brings in numbers of people who want washing machines, but do not feel they should buy brand new one. When these prospects enter the store, they ask for the machines that have been advertised. When one of these is shown, they are told of its actual condition and care is taken that nothing be misrepresented.

After the prospect is thoroughly interested, the salesman commences to compare this rebuilt machine with a brand-new model on the floor. The two machines are put side by side so comparison can be easily made. It is found that in nine cases out of ten, it is only a matter of salesmanship to sell the prospect the new machines.

An interesting point brought up in this connection is the fact that most people who are looking for second-hand washers usually have the money with them and can make substantial cash payments.

How do they get rid of their old washers? When the store stock of new machines has gone down to three or four models, they make special efforts to sell the "rebuilts." Then, of course, there are always people who will not purchase new models, but insist on buying the rebuilt washers.

The company's volume on washing machines will probably exceed $35,000 this year, with an average investment of $1,000 to $1,200.

All washers are sold on easy terms, unless the customer can pay the cash. Ten per cent is added for carrying charges. On a machine selling for $150, a down payment of $15 is collected, with payments of $15 a month.

The General Engineering & Sales Company is made up of A. E. Oltz, father of Allan C., Howard and Lyman, all of whom are working together under the above firm style. One salesman is also employed.

The boys and their father are keenly interested in furthering the electrical idea and with the other electrical dealers in Hammond have put on an "Electrical Home" that would do credit to cities much larger than Hammond.



"Section 2—The Home Electrical"

Sent you with this issue of *Electrical Merchandising*

Are You Using This Gift-List and Picture Supplement in Your Christmas Selling?

ELECTRICAL MERCHANDISING again reaches you in two sections this month — as it did last month, November.

Section One is the regular main magazine, devoted to the selling problems of the electrical trade, and

Section Two, The Home Electrical, is an 8-page sepia supplement of pictures suggesting new and convenient uses of electricity, for the home and for the public generally. This *Home Electrical* Section is separate from the pages of the main magazine, but will be found slipped in between them, for convenience in mailing.

The Home Electrical Section carries a message for you and your selling staff, but it has an even more important and more interesting message for the customers to whom you want to sell. It will tell them the electrical story in the universal language of pictures. It will suggest electrical Christmas gifts. It will do missionary and educational work for your store.

Eight Practical Uses For Copies of the "Home Electric" Section

1. Give it to visitors to Electric Home exhibits.
2. Use it as a follow-up to all visitors at Electric Home exhibits.
3. Give it out to club women when electrical subjects are discussed at their meetings.
4. Give it to visitors (or preferred customers) who call at the sales rooms. Use in conjunction with your own literature.
5. Use it as a mail follow-up to purchasers of large unit devices—washing and ironing machines, ranges, refrigerators, etc.
6. Have your service man deliver copies of it when they make calls.
7. Send it out with a service letter to new users of large household appliances.
8. Have salesman carry copies and deliver to every prospect that they call on.

Additional copies of the November and December "Home Electrical" Sections for your use as above can be furnished by *Electrical Merchandising* at the rates of

5 cents each in quantities above 200, and
4 cents each in quantities above 1000.

In quantities above 5000 special rates will be quoted upon application to

ELECTRICAL MERCHANDISING
10TH AVE. AT 36TH ST.
NEW YORK CITY

A Housewife's Slant on Selling Electrical Things

By SHIRLEY VIRGINIA CARTER

PEOPLE who sell electrical things in stores seem to be of two general classes: those who say to themselves "There's no use trying to explain anything electrical or mechanical to a woman" and those who think: "Maybe she's really interested in what makes it work!" And you don't have to waste a bit of time guessing which kind of salesman does the most business!

A girl I went to school with hated physics like a pair of tight pumps at a West Point hop. She never could see why amperes and volts shouldn't be interchangeable and every time she tried the Leydon jar experiment the laboratory had to buy a new jar. She'd always drop it on the floor when the spark jumped to the little brass ball on top. She had what the boys called a high factor of stupidity on electrical subjects.

And yet when a recent magazine article came out on lightning, by Dr. Steinmetz, this girl read every word of it. It was written in every-day plain English and told just what is dangerous about thunderstorms and what isn't.

I think that's typical of the average woman who buys electrical things. It's true that the scientific slang, as a neighbor of mine dubs the jargon of the too-technical salesman, doesn't do the sort of thing to her mental attitude that brings on a desire to buy. But when a salesman tells her about a vacuum cleaner and how it works—in an interesting, understandable way—he'll find her an attentive listener.

That doesn't mean that the salesman can tell a woman any old thing and get away with it! Last week I was with a friend who was looking over a washing machine. Women often shop in pairs, you've noticed, and it pays to sell *both* of them when you get the chance!

Well, the man who was telling us about the washing machine began to explain how it cleaned clothes.

"The hot water dissolves the dirt," he said, "and leaves the material clean again."

"That's funny," protested my companion. "You know, I understood that when fabric gets dirty it is because minute particles of soot and dust have lodged between the threads—the warp and the woof, aren't they? And then I thought the washing machine did its cleansing by forcing water between the threads and driving the little pieces of dirt out!"

We went out right after that. She said she'd read about it in a booklet some washing machine company sent her, and if that salesman didn't know about it he couldn't be so very good!

"How like a woman!" you say. Right! And a bit illogical as well, perhaps. But it just shows that it sometimes pays a salesman to give a woman customer credit for a little knowledge and at least sound her out before giving her his stock story.

If I were a salesman selling electrical things to women, I think I'd base my tactics on these three premises:

1. Women are interested in knowing how household machinery works.

2. They may know a little bit about it already.

3. Accurate information, told interestingly and simply will help the sale.

The other afternoon a neighbor of ours ran in to tell me that she'd just bought a new ironer, and she explained how it worked so clearly I asked her what sort of salesman she bought it from.

"He's a wonder," she enthused. "He told me all about it just as if I had been a guest in his home!"

And that struck me as being a pretty good description of the right sales attitude toward the woman customer.

Did you ever notice how *small things* attract women? Perhaps it's the toy instinct. Anyway, small editions of regular products fascinate us.

In the electric shop where we buy our lamps they've discovered this feminine failing—or perhaps characteristic is a better word!—and they use it to advantage. They display their little electric traveling irons right beside their biggest size and I guess they sell a lot of them that way. I noticed that they put some little 10-watt lamps next to a 250-watt bulb and when I stopped to look a clerk told me how handy the 10-watt size is for an all-night light.

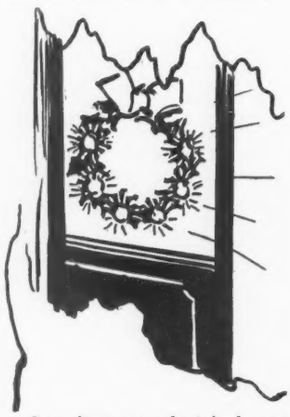
"Leave one of these lit when you go away for the night," he suggested, "and the burglars will stay away!" That's a point that certainly appeals to women and I wonder why it isn't used more often in the sale of lamps.

For the same reason, the other little things—from through-switches to radium locaters—will sell to women if they're well displayed.

And speaking of women as household executives, do you realize how many women are running their homes on a budget? Ask a few and you'll see!

There are lots of different budget plans, but most of them work on the general idea of apportioning a

Put "Electric-Lighted Berries" on Your Christmas Wreaths!



"Why doesn't some electrical manufacturer or dealer bring out an electric-lighted Christmas wreath, with the red berries on it made of tiny red-dipped incandescent lamps?" asks A. Jackson Marshall, secretary of the Commercial Section, National Electric Light Association. "Such a wreath of life-like artificial Christmas greens, if artistic would have many purchasers attracted by the novelty of the tiny electric-lighted berries—red berries by day, and ruddy spots of Christmas cheer by night!"

definite part of the income to a certain class of expenditure like "Food," "Rent," and "Equipment."

If I were trying to sell a woman an electric washing machine I'd ask her right at the start if she used a budget. Because, judging from the women I know, they all want washing machines if they haven't them, but they all feel that a hundred dollars is a lot of money. Some of them dislike time payment plans, too.

Well, if my woman customer said she did have a budget, I'd say:

"Mrs. Calkins, that's just splendid! You want a washing machine. But you say a hundred dollars is a lot of money, and you'd rather not buy on the installment plan.

Suggest Budget System to Pay Installments

"All right! I'll show you how you can make your own budget finance your time payments! How much do you pay your laundress a week? $6.00? With our washer you can reduce that to $5.00 because she won't have to work so hard and it won't take her so long. So your 'Laundress' item is going to pay you $1.00 a week.

"And about your husband's shirts. You send them to Charlie Sing or Hop Lee or somebody, don't you? I thought so. Costs about $.75 a week? With the new washing machine you can have those done at home. So 'Outside Laundry' will pay you $.75 a week.

"Now suppose you buy the machine and charge the hundred to your 'Household Equipment' account. Each week you can write off $5.00, taking $1.00 a week from 'Laundress,' $.75 from 'Outside Laundry' and $3.25 a week 'Household Equipment.' In 20 weeks your machine is all paid for and two of your operating accounts have been permanently lowered!"

As a salesman I might have to spend a little time demonstrating my idea of household bookkeeping, but if I made a cash sale it would be worth it, wouldn't it? And besides, "budgeting" her electrical purchases often starts the habit of allowing a more generous expenditure for electricity.

I've heard a lot of store people say that women are hard to sell to, that they are indecisive and that they make a service man needless trouble. Maybe. But here's a good thing to remember: Women love to buy things!

Start a Sewing School to Sell Your Electric Sewing Machines

Brooklyn Campaign Sells 405 Machines in Two Months, Proving That Treadle-Machine Sales Methods Sell Electric Machines, Too

SELLING electric sewing machines is nothing more than a matter of forcing the electric sewing machine—constantly and persistently—on the attention of the housewife.

When a woman decides to buy a sewing machine at all, the difference in price won't keep her from buying an electric machine which so "more than makes up" for that price difference in efficiency and comfort. Provided she *knows* about that efficiency and comfort. If the choice occurs to her at all, nine times out of ten she decides for the electric machine. Too often she simply goes and buys the treadle machine which she has seen for weeks in the shop window on Main Street and seen advertised in the newspapers. But that is only when her local electrical dealer never puts *his* sewing machine in the window or advertises it in the newspapers.



One reason why the electric sewing machine salesman *must* know how to sew, is that the average woman knows more about this than about any other electrical device. Hence she is quicker to spot the salesman with superficial knowledge.

Adopt the Methods of the Treadle-Machine Dealers

Now, merely putting a few electric sewing machines in the store will never sell them. It wouldn't sell treadle machines—why should it sell electric? The sewing machine stores know better. They try other methods. And they sell the machines.

For one thing, they run free sewing classes. They organize purchasing clubs and plan contests. They feature easy payment plans and allowances for old machines. They take out machines in a Ford car and make house to house demonstrations, and leave machines for free try-outs.

And when the electrical dealer adopts the same methods, he will sell



Up front, right near the windows—where women passers-by can stop and linger, and watch pinafores and curtains grow under their eyes—that's where to put your demonstrator, if you want to sell electric sewing machines. Is this Albany store selling 'em? We'll say it is! And any dealer can do the same, by following these methods.

an equal volume of electric sewing machines.

A Sewing School Campaign That Sold 405 Electric Machines

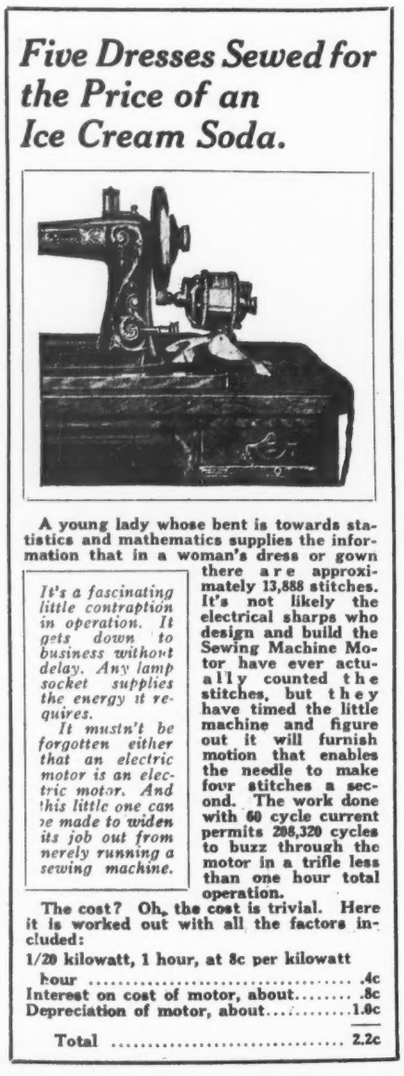
The free sewing class is perhaps the best of these ideas, as the Brooklyn Edison Company proved in a recent successful sewing machine campaign. This campaign was carefully mapped out beforehand, and the sewing class, or course of instruction, was decided on as the most important of three selling inducements. The other two selling appeals were:

First—the desirability of the electric machine because of its portability, ease of operation, and speed. Second—attractive terms, only $4.50 down and $5 a month for nine months.

Class Proves a Good Talking Point for Salesman

As it proved, the sewing class which each purchaser of a machine was privileged to attend, not only made a valuable talking point for the salesman, but also made every woman thoroughly familiar with her machine and cut down subsequent service calls.

The course consisted of four lessons. Because the campaign was planned on a large scale, a room was fitted up with fourteen wooden tables, each holding two sewing tables. Thus twenty-eight "pupils" were provided for. Lessons were given for five weeks, morning and afternoon. Each lesson lasted an hour, but a member could take her four lessons all in one day or on any four days during the period that the school was open.



"Five Dresses Sewed for the Price of an Ice Cream Soda"—an effective point effectively made in a newspaper advertisement of the Public Service Company of Northern Illinois.

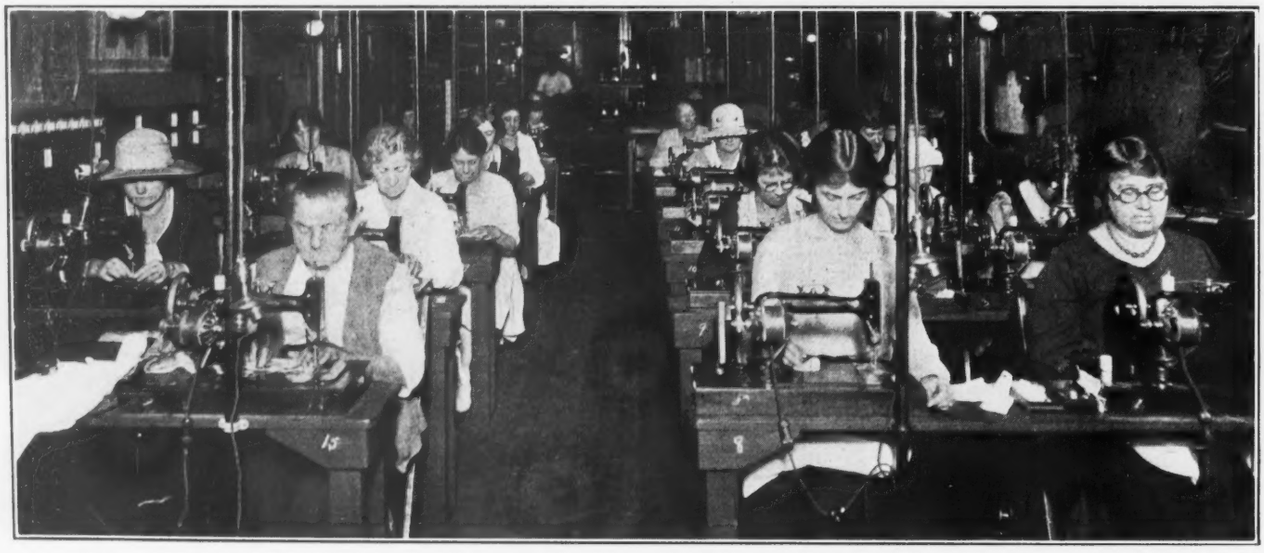
Three teachers were supplied for the school by the sewing machine manufacturer. The lessons were planned to give thorough training in the use of hemmer, tucker and other attachments.

Extensive newspaper advertising told about the sewing school and sewing machine offer, and announcement cards were mailed to a large list. The salesmen reported both of these forms of publicity invaluable aids.

The remarkable success of this campaign—405 machines sold in two months—proves that electric sewing machines *can* be sold by the same methods that always have sold treadle machines. And this school, moreover, was run in the hot summer months, when it is difficult to get women out even for a matinee. The Brooklyn company feels that any electrical dealer who followed its plan in the winter or spring would have even greater success, proportionately.

Getting The Electrical Idea Across to the Barber's Clients

Ever find anything interesting to read in a barber's library? Neither did W. J. Ball, of the Tri-City Electric Company, Moline, Ill. And so, every month, he takes a copy of *Electrical Merchandising*, stamps the company's name in it a few times and on his next visit to his barber carries it with him and leaves it at the shop. Many patrons become so absorbed in it that they want to take it away with them, according to the barber.



Brides-to-be, young mothers, middle-aged housewives and even grandmothers thought the privilege of attending these sewing classes worth the immediate purchase of an electric sewing machine. The Brooklyn company found its unique school well worth while, for 405 electric machines were sold during the campaign. The sewing class made the salesmen's best talking point.

A Commercial Survey of Residence Lighting Possibilities—IV

Middle-class vs. Lower-class Homes

By M. LUCKIESH

Director of Applied Science, Nela Research Laboratories, Nela Park, Cleveland, Ohio

IN PREVIOUS articles (in *Electrical Merchandising* for September, October and November) it has been shown that urban middle-class homes are greatly under-wired and under-lighted. That is, the wiring and lighting equipment are much less than that for a "conservative ideal" in which these are such as to provide adequate and proper lighting. In other words many commercial possibilities were shown to be present in the wired homes of the middle-class in our cities. It was stated that there were also great opportunities in the middle-class homes of towns, villages, and rural districts and in the lower-class homes.

In this present article the conditions in the urban lower-class homes are compared with those in the urban middle-class homes. The lower-class homes studied in connection with this article were single houses and 90 per cent had from five to seven rooms. Thus it is fair to compare this group with the middle-class group which we have previously studied because of the similarity in average size.

Total Wattage per Home

In Table I are presented the average total wattages of lamps found in the two classes of homes of different sizes or numbers of rooms. It has been found that the number of rooms provides an interesting basis of comparisons.

TABLE I—AVERAGE TOTAL WATTAGE PER HOME

Number of Rooms	Lower-Class	Middle-Class	Ratio
4	215	400	0.54
5	319	560	0.57
6	417	720	0.58
7	520	910	0.54
8	605	1,080	0.56

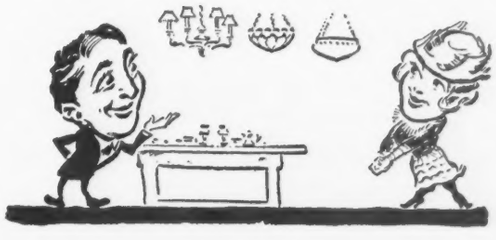
It is seen that the average total wattage in the lower-class homes is only about 56 per cent of that in the middle-class homes of the same number of rooms. It is shown later that the lower-class home is less adequately lighted than the middle-class home.

Average Wattage per Room

In Table II are presented the average wattages in the various rooms of the lower and middle-class homes.

The sum of the average wattages in these six places in the lower-class home is 52 per cent of that in the middle-class home which checks fairly well with the ratios given in Table I which are for the average complete homes. The wattages per room are particularly valuable when considered in connection with the types of fixtures.

In Table III are presented the average number of ceiling-fixtures, brackets, portables, and other outlets in the two classes of homes of about the same average size. The data pertaining to fixtures do not in-



"Notice the Lighting Equipment" Wherever You Go

Associated Lighting Industries

ABOVE is the new slogan adopted by the Associated Lighting Industries, made up of the National Council of Lighting Fixture Manufacturers, the Lighting Glassware Guild, and the Lighting Fixture Dealers Society of America. It is being promoted by being used in manufacturers' advertising, and dealer members are asked to include the phrase (which is copyrighted) in announcements and printed matter which they distribute. The new slogan will also be made a feature at the

Fourth Lighting Fixture Market and Fixture Dealers Convention,

Hotel Winton, Cleveland, Ohio,
January 15 to 20, 1923

clude those in hallways, on porches, etc. They represent only the living-room, dining-room, kitchen, bathroom and bedrooms.

It is seen that there is almost a total absence of brackets and of portables in the lower-class home and inasmuch as practically all of the fixtures are ceiling-fixtures it is obvious that almost all the sockets in the lower-class home are in the ceiling-fixtures. The number of sockets per fixture is approximately the same in these two classes of homes. Inasmuch as most of the rooms in the two classes of homes are comparable in size it is seen after a consideration of the type of fixtures, that the lower-class home is underlighted to even a greater degree than the middle-class home. For example, the great difference in the average total wattages in the various rooms, as shown in Table 11, indicates a much less adequate lighting in the lower-class home than in the middle-class home inasmuch as the types of fixtures and sockets per fixture are quite the same in both cases. Inasmuch as the types of fixtures and sockets per fixture are practically the same in the two cases these data are not presented.

TABLE II—AVERAGE WATTAGS PER ROOM

	Lower-Class	Middle-Class
Living room	104	258
Dining room	83	154
Kitchen	58	81
Bedroom	39	71
Bathroom	38	55
Basement	52	98

From the viewpoint of adequate lighting, lamps of larger wattage should be installed in practically all the fixtures found in the lower-class homes of the present time. From the viewpoint of proper, as well as adequate lighting, more brackets should be used in bathrooms and bedrooms even at the sacrifice of ceiling outlets. Likewise an average of at least one satisfactory portable for reading purposes can certainly be justified in the lower-class home.

The percentages of fixtures not having shades are as follows: kitchen ceiling-fixtures, 33 per cent; bedroom ceiling-fixtures, 26 per cent; bathroom ceiling-fixtures, 56 per cent; bathroom brackets 56 per cent; basement socket, 95 per cent.

TABLE III—AVERAGE NUMBER OF FIXTURES, PORTABLES AND OTHER OUTLETS PER HOME

	Lower-Class	Middle-Class
Ceiling fixtures	5.4	5.6
Brackets	0.4	2.5
Portables	0.2	2.0
Sockets per basement	1.3	2.0
Convenience-outlets	0.3	3.2

Convenience-Outlets per Home

In Table III it is seen that there are about ten times more convenience-outlets in the average middle-class home than in the lower-class home and it has been shown that the former contain an average only one-third the number it should. In Table IV another view of the convenience-outlet situation is presented.

TABLE IV—AVERAGE TOTAL CONVENIENCE-OUTLETS PER HOME OF VARIOUS SIZES

Number of Rooms per Home	Lower-Class	Middle-Class
3	...	0.5
4	...	1.0
5	0.1	1.6
6	0.5	2.3
7	1.0	3.1
8	1.5	3.8

The extreme scarcity of convenience-outlets per home is well shown by Table IV. In the smaller lower-class homes practically none are found and for the seven-room home there is an average of only one per home. The householder of this class is entitled to some use of portables and appliances and therefore he should have convenience outlets.

Summary

The lower-class home is greatly under-lighted.

Certainly the total wattage of lamps in the present sockets should be greatly increased.

The fixtures are of the same general type in the various rooms as are found in the middle-class home.

Practically no portables and convenience-outlets are found in these lower-class homes.

A large percentage of the fixtures in kitchens, bedrooms, and bathrooms do not possess shades.

From the standpoint of the conservation of vision which demands adequate and proper lighting, the lower-class homes need attention.

These shortcomings of the wiring and the lighting of the lower-class home should also serve as effective arguments in dealing with the wiring and the lighting in homes of this class which are to be wired in the future.



Radio Week—Christmas Week!

Dec. 23 to 30

PLANS are already well advanced for the celebration of a National Radio Week during the holiday season, commencing December 23 and continuing through until December 30. Special broadcasting programs are to be put on in each locality during National Radio Week, more than 300 newspapers already having been enlisted to aid in securing speakers for and in giving local publicity to the holiday radio programs.

It is hoped to have President Harding, speaking from the White House, broadcast a Christmas message to the whole nation via the ether, and the plan will be to supplement this national speechmaking with addresses by the governors of the various states.

Already these prospects for National Radio Week are having their influence on the interest in radio subjects expressed by the public at large. Under the stimulus of Radio Week plans, people are adding radio sets to their lists of intended Christmas purchases, determined to devote the leisure of the holidays to a thorough enjoyment of the National Radio Week programs. Dealers should follow closely the developments as reported from day to day by their nearest newspapers with good radio departments, and should be prepared to

Make This a Radio Christmas!

Carrying the Story of Electrical Convenience to the Public, in Pictures

The Home Electrical

Section of *Electrical Merchandising*

December, 1922—In Two Sections—Section Two



As Her
Fireside Days
Draw Near—

Plan an Electrical Gift for Mother—This Christmas!

FOR mother, somehow, is always so busy building for *our* future that the right moment never seems to come when she can buy things for herself.

She keeps a budget, but she is pretty poor at it—she can never make it reach to buy the household helps that would save *her* so much. Once, she nearly bought an electric washing machine—but our vacation trip nipped that.

Her favorite remark is—"Some day, I'm going to buy a vacuum cleaner, and that electric machine for washing dishes." Her favorite dream is serving tea to her friends, cozily, near a crackling fire, with shining electric tea and toast things and the tea wagon she's never had.

Isn't it about time the family makes her dreams come true—by getting together to buy her a really worthwhile electrical gift this Chirstmas?

Get Suggestions From This Electrical Home—





(Electrical Merchandising, December, 1922)

For Gifts That Spread Happiness and Cheer



Important to bedroom comfort are the heater, good lamps, hair drier and heating pad.



Cooking's better fun than games—on a real, electric range

"A happy home is the result of happy thoughts."

—and there never was a happier thought than the enlightened application of electricity to workaday tasks. For those of us who want to give a Christmas gift that will really help make a happier home these picture-glimpses into an electrical home will have many welcome suggestions. It is the home of A. E. Wishon of Fresno, Cal



The electric d[illegible]er and [illegible]re happiness in the kitchen

(See last page of this section for wiring plans of this home)



Electri(a

Something for ny

$2.50 and Under

- Appliance cord sets
- Batteries
- Bells
- Candlesticks
- Christmas-tree lights
- Cords, extension
- Curling iron
- Decorative switch plates
- Double sockets
- Electric appliance connector for the dining table
- Feed-through switches
- Flashlights
- Fuses, by the carton
- House numbers
- Lamps, plain and tinted
- Lamps, automobile
- Lamp adapters
- Lamp shades
- Luminous locators
- Novelty pulls for pull chai
- Perfume burners
- Radio parts
- Sockets with delayed turn-off
- Switch plug
- Turn-down lamps
- Turn-down sockets
- Wire lamp-shade frames

From $2.50 to $5

- Battery lanterns
- Bells
- Boudoir lamps
- Candles, electric
- Candlestick, adapters
- Christmas-tree lighting sets
- Christmas-tree lamp ornaments
- Cigar lighters
- Curling irons
- Curling-iron heaters
- Dark-room lanterns
- Desk lamps
- Disk stoves
- Fans
- Heating pads
- House numbers
- Immersion heaters
- Incense burners
- Irons, boudoir, traveler's
- Lamps
- Lamp shades
- Novelty night lights
- Ready-to-make lampshade se
- Radio parts
- Phonograph-record flashlights
- Scarf-pins, luminous
- Sewing lamps
- Toasters
- Vibrators
- Wall plates, luminous

From $5 to $10

- Bird cage, lighted
- Boudoir lamps
- Candles, electric
- Christmas-tree lighting sets
- Cigar lighters
- Corn poppers
- Curling irons
- Desk lamps
- Disk stoves
- Fans
- Fireplace heaters
- Flashlight canes and umbrellas
- Flowers, illuminated
- Grills
- Heaters, radiant
- Heating pads
- Ice cream freezers
- Immersion heaters
- Incense burners
- Irons
- Lamps
- Lamp shades
- Milk warmers
- Novelty night lights
- Percolators
- Phonograph motors
- Piano lamps
- Radio parts
- Samovars
- Sewing lamps
- Shaving mugs
- Shaving mirrors, lighted
- Table lamps
- Table stoves
- Therapeutic lamps
- Toasters
- Vibrators
- Water heaters

From $10 to $20

- Aquarium, lighted
- Bakeoven
- Boudoir lamps
- Boudoir sets
- Candles, electric
- Chafing dishes
- Churns
- Clocks, electric
- Coffee mills
- Curling irons
- Desk lamps
- Disk stoves
- Drink mixers
- Egg beater
- Egg boiler
- Egg tester
- Electric blankets
- Fan
- Fireless cooker
- Flashlight cane and umbre
- Floor lamps
- Flowers, illuminated
- Grills
- Hair dryer
- Heaters radiant
- Heating pads
- Immersion heaters
- Incense burners
- Intercommunicating teleph
- Irons pedestal type
- Lamps
- Lamp adapters
- Lamp shades
- Milk warmers

Here's a Time-Saving Gi gestio
Useful and Distinctive f ery M

(al Gifts
r ny Pocketbook!

Novelty night lights
Percolators
Phonograph motors
Radio parts
Samovars
Sewing machine motors
Shaving water heaters
Small, portable table wired for electricity
Shaving mirrors, lighted
Table lamps
Table stoves
Therapeutic lamp
Toasters
Vanity bag, electrically lighted
Vibrators
Waffle irons
Water heaters

From $20 to $30

Bakeovens
Baskets, utility and sewing baskets, electrically lighted
Boudoir lamps
Candles, electric
Chafing dishes
Clocks, electric
Fans
Fireless cookers
Floor lamps
Flower baskets and flower trays, electrically illuminated
Hearing devices
Heaters, radiant
Heating blankets
Lamps, decorative
Novelty bed lamps
Percolators
Pressure cooker, electrically heated
Radio parts
Samovars
Table lamps
Trays, electrically lighted
Vibrators
Violet-ray sets

From $30 to $50

Bakeovens
Baskets, utility and sewing baskets, electrically lighted
Clocks, electric
Cookerettes
Cream separators
Desk sets, complete with electric lamp
Electric tea wagon
Fans, decorative
Fireless cookers
Fireplace logs, electric
Floor lamps
Flower baskets and flower trays, electrically illuminated
Fountains, decorative
Heating blankets
Kitchen utility motors
Lamps
Mirrors, decorative boudoir mirror, electrically lighted
Percolator coffee sets
Radio parts
Samovar tea sets
Small clothes washer
Sewing machine
Table lamps
Vacuum cleaners
Ventilating outfit
Violet-ray sets

$50 and Over

Bakeovens
Clock systems, electric
Clothes washers
Cooking stoves
Dish washers
Fans, decorative
Fireless cookers
Fountains, decorative
Heating blankets
Ironing machines
Lamps
Phonographs, electric
Percolator sets, silver
Pianos, electric
Radio sets
Radio telephone sets
Ranges
Refrigerators
Sewing machines
Tea sets, silver
Vacuum cleaners
Violet-ray sets

In the Toy Department

Animals with radium-button eyes
Automobile, juvenile electric
Batteries
Bells
Bicycle lamps
Boats
Books on electricity
Dancing dolls
Dolls with luminous eyes
Doll houses, electrically lighted
"Electrical Home" games
Engine, electric
Experimental electric sets
Flashlights
Flashlight pistols
Irons, toy electric
Magnets
Motion picture machines
Motors
Ovens, toy
Postcard projectors
Ranges, toy
Rheostats
Railway sets
Switches
Telephone sets
Tops, electric
Trains
Transformers, toy
Washing machines, toy
Wireless equipment

Gift gestion List With Something
ve for ery Member of the Family



Have an Outdoor Christmas Tree –



Outdoor, electric lighted Christmas trees will be all the style this Christmas.

First, there is the community Christmas tree, bringing holiday joy to thousands. And, of course, the individual business concern can brighten the night in its vicinity—as did the roadside hotel shown above—or the downtown store, with its "second-story" tree, pictured on the opposite page.

But most important of all is the "home" outdoor tree, decking with electric lights the evergreen branches of some firmly rooted old friend of the front lawn—as in the lower picture opposite. A Rochester electrical contractor installed the lighting on eighty such trees last season. Each tree carried 20 to 70 lamps, and the householder was charged 80 cents per lamp for the week's lighting.



A COMMUNITY TREE



THE GIFT OF THE BOARD OF TRADE

And, of Course, Make It Electrical!







Put Into the Blue Prints of Your Own "Home-to-Be" the Symbols That Mean

Electrical Comforts and Conveniences



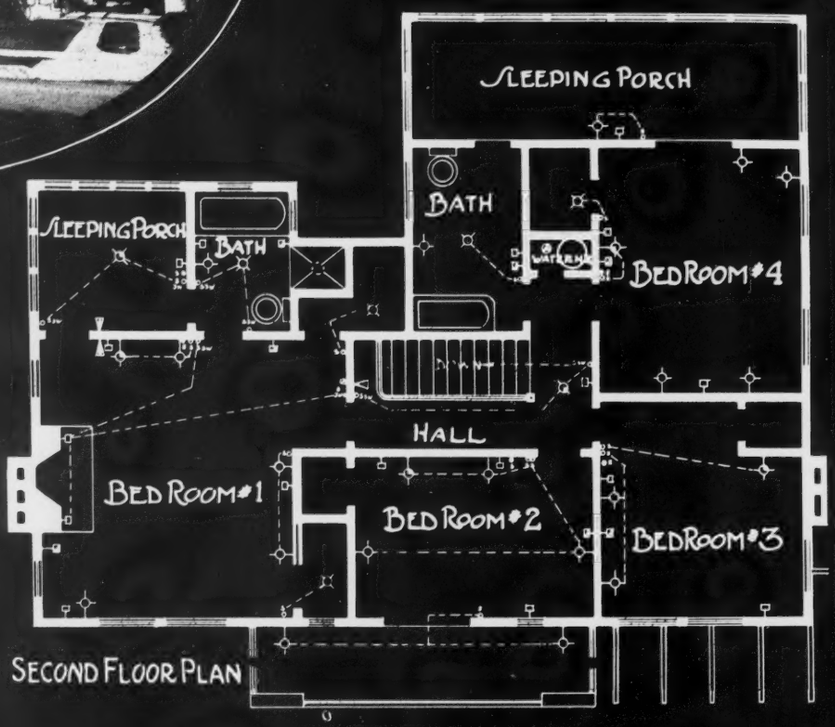
THESE plans show in detail the electrical wiring lay-out that made possible all the labor-saving and comfort-creating devices in the A. E. Wishon home, pictured in part on Pages 2 and 3 of this supplement. Note in particular these important details:—

The use of wall switches to control the lights in all rooms, including porch, den, service porch and bathroom.

The numerous convenience outlets (for walls and baseboard) for connecting electrical appliances in all rooms.

The switch near the kitchen controlling the electric lights in the tennis courts.

The burglar lighting system, lighting ceiling lamps throughout the first and second floors, controlled from bed-side switches in each of the principal sleeping rooms.



SECOND FLOOR PLAN

SYMBOLS

- CEILING OUTLET
- BRACKET OUTLET
- S — SWITCH S.P. TOGGLE
- S SW — SWITCH 3 & 4 WAY
- CONVENIENCE OUTLET
- FLOOR RECEPTACLE
- HEATER RECEPTACLE
- PHONE OUTLET
- PHONE PLUG
- PUSH BUTTON FOR BELL
- BUZZER OUTLET
- SPECIAL OUTLET
- CEILING, BRACKET, S SWITCH — OF BURGLAR ALARM SYSTEM

BURGLAR SYSTEM TO CONSIST OF ONE LAMP ON FIXTURES INDICATED CONTROLLED BY A SYSTEM OF 3 AND 4 WAY TOGGLE SWITCHES



FIRST FLOOR PLAN

Electrical Merchandising *Pictorial*

A Monthly Picture Section of Sales Ideas



"Say It with Pictures!"

How You Can Use "Electrical Merchandising" in Your Christmas Selling Across the Counter

EVERY electrical appliance and wiring device is sold because of the convenience and comfort that it promises, and the sale is made because somebody pictures in her mind's eye what it will look like or do in *her* home.

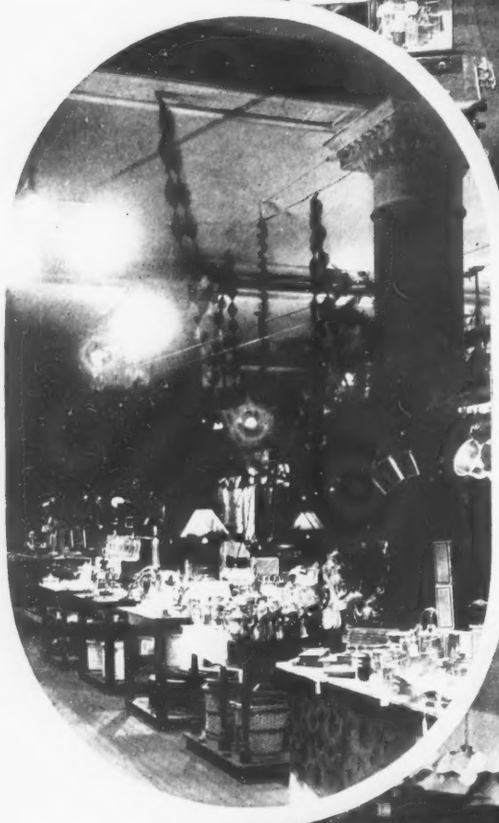
Help these "minds' eyes" with pictures. Don't rely on words alone in telling your customer how she will use and enjoy a toaster or a cleaner. Show her real pictures of the devices and of other women actually using them. These pictures will help you sell.

In every issue of *Electrical Merchandising* there are pictures—in articles, advertisements and particularly in the *Home Electrical* Section—that will interest the people who come to your store. Use this magazine that way and *show* your customers as well as tell them. *"Say it with Pictures,"* when you can.

What Luck! There Is Always Some New Way

Every Year Somebody Gets a Bright Idea And—





THERE is as much difference between Christmas shopping and Christmas selling and the store routine of other days, as there is between having music and no music at a banquet. For the Christmas atmosphere that we build up in our stores during "the Holidays" *is music to the eye!* It sets up a selling rhythm that carries you along—and you enjoy it. The red bells, the green streamers, the sparkling trees, the Christmas cards, the holly boxes, the greetings between friends who meet, the bustle and the chatter—all combine to change what another season is just "buying things," into a universal game of seeking bright ideas for joyous giving. And the better the "music" in a store the better the shopping and the selling.

The Store Climbs Up Out of the Rut, And—



To Dress Up an Electrical Shop for Christmas



Puts a Glad Smile on Its Face And—



—You Hold Another Carnival of Selling!

UNTIL you set yourself to do it, no *new* scheme of Christmas decoration seems possible that you or a neighbor have not conspicuously displayed before. But when you call your staff together and begin to talk it over, you find the way. Any one may hit upon the thought you need—wives and sisters have an outside point of view that often helps. Build up the "atmosphere." Then plan the showing of the goods so that your store will not be just a place where presents can be purchased, but a fresh display of welcome gift suggestions that will give so many inspirations to the shopper. A rich Christmas Harvest lies ahead. What it will mean to you depends on what you do, right in your store, and at this time.



You Be

Was there ever a Better



gets all the dirt

picks up the threads

THE GOOD CLEANER

AMERICA

Over, Under and Thru

Electrical Merchandising Pictorial, December, 1922

the Judge!

Merchandising Plan?

EVERY dealer who has cooperated with us has a larger and better Electric Cleaner business today than under any other sales plan he has ever tried. Our Sales Developer Plan was built to help America Dealers to more sales and larger profits.

Our trained Sales Service Men are at the disposal of dealers in any market that will support a permanent America Sales Force; they will affiliate themselves with your organization; they will hire and train men *who can and will* make Electric Cleaner sales. This is not a "flying squadron," not a temporary campaign offer, but is a plan that will start you on the road to volume sales and the *permanent* sales-getting organization will keep right on getting the business.

The Sales Developer Service, together with our Financing Plan, which gives you the full benefit of a cash transaction—and your 100% Profit—makes this an ideal sales proposition, for it means rapid turnover and large net profits to you.

Plus this proven sales plan, you are selling a Cleaner that will attract and interest your customers. The same features that appeal to the experienced dealer make ready sales to the retail buyer who is swayed by claims to superiority that the product will back up and prove in actual demonstration, competitive or otherwise.

Send—TODAY for our booklet, "Selling on Time for Cash," together with discounts and complete information regarding our cooperative service to the dealer.

THE WISE-McCLUNG MANUFACTURING COMPANY
500 Eighth Street
New Philadelphia, Ohio
Export Department: 11 Waverly Place, New York City, N. Y.

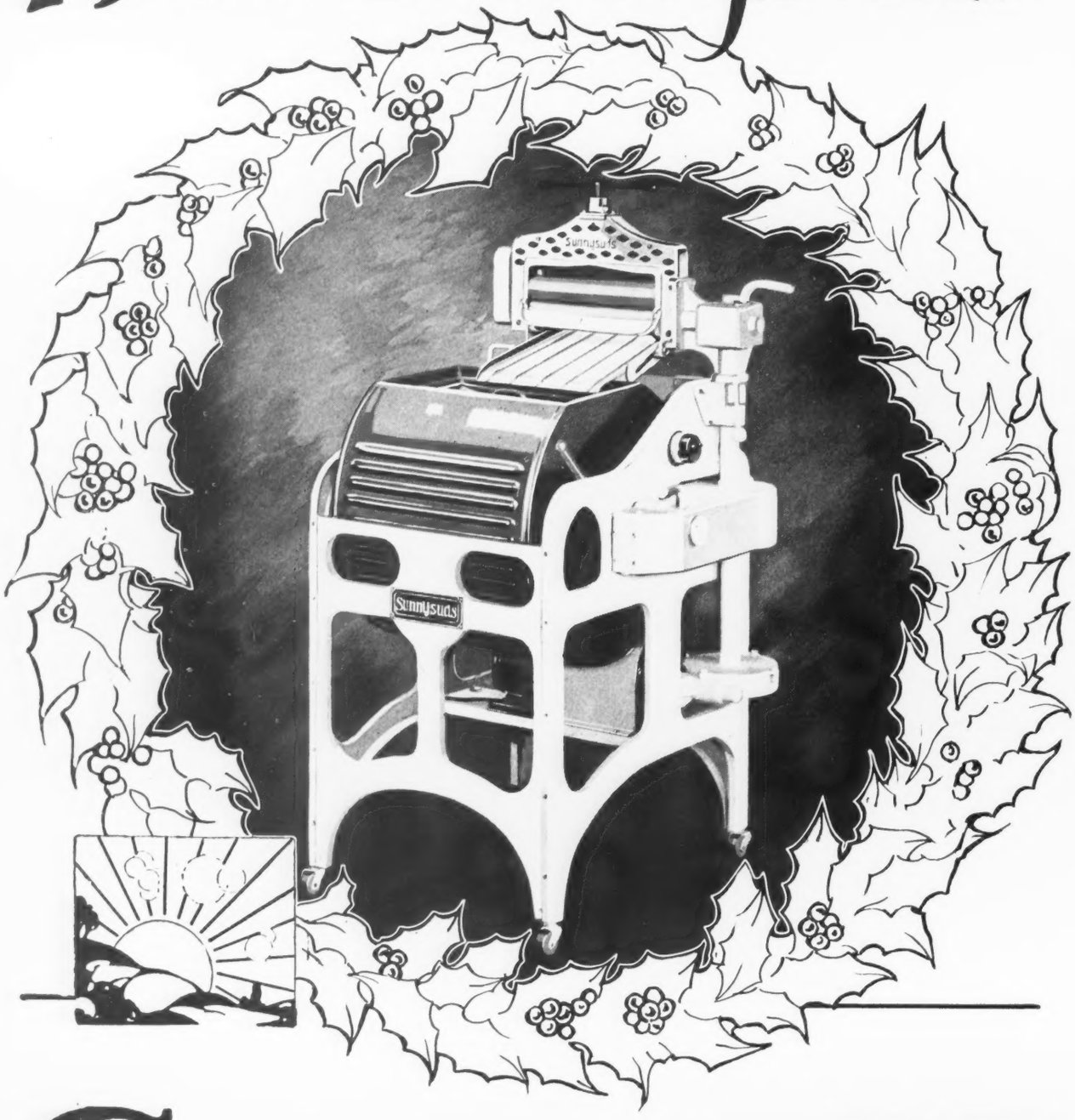
THE GOOD CLEANER

AMERICA

Over, Under and Thru

Electrical Merchandising Pictorial, December, 1922

7500 Sunnysuds



Sunny

Electrical Merchandising Pictorial, December, 1922

Washers in 7 Weeks!

1100 Dealers Are Participating in the Profits of This Intensive Selling Campaign

From the day of its announcement, the Sunnysuds has been the unquestioned leader of all moderately priced washers, leading as decisively in popularity as it does in originality and soundness of design. Our recently inaugurated policy of intensive selling through all dealers and all Sunnysuds-operated Resale Departments has culminated in what is probably the most widely discussed sales campaign of the industry.

A Tested Selling Plan

On November 1st, all Sunnysuds retail outlets began a seven weeks' campaign for which a total of 7500 washers had been alloted. All are following a tested method of obtaining prospects and closing sales—a method that was inaugurated, developed, and perfected by the most successful organization of washing machine retailers in the world. The plan—which works with equal success in small communities and large cities—was presented to all Sunnysuds dealers in complete detail. Necessary material was furnished. Nothing was left to chance. Unusual profits were assured for all dealers who carried out our suggestion.

Complete Success Assured

As these words are written, the campaign is hardly under way. Yet the reports we are receiving are of a most enthusiastic nature. So exceptional are the pre-Christmas sales being recorded in most of the districts where the Sunnysuds is represented that we are almost justified in predicting, at even this early date, the complete success of the entire campaign.

Participate in the Profits

If you are not one of the 1100 dealers enjoying the profits of this widely discussed campaign—if your washing machine department is not producing a satisfactory net profit—if you are in a territory where the Sunnysuds is not adequately represented—if you want the dealership for the most popular and fastest selling electric washer on the market—you still have time to participate in the profits. Write at once for complete details and for salient reasons why the Sunnysuds franchise is the most desirable for any dealer to whom *net profit* is of prime consideration. Act at once. Each day is important as the campaign gains momentum.

(36)

SUNNY LINE APPLIANCES, INC.

Factory:
DETROIT, MICHIGAN

Sales Department:
MANSFIELD, OHIO

Canadian Factory: Kitchener, Ontario
Export Dept. 149 Broadway, New York



suds Electric Washer & Wringer

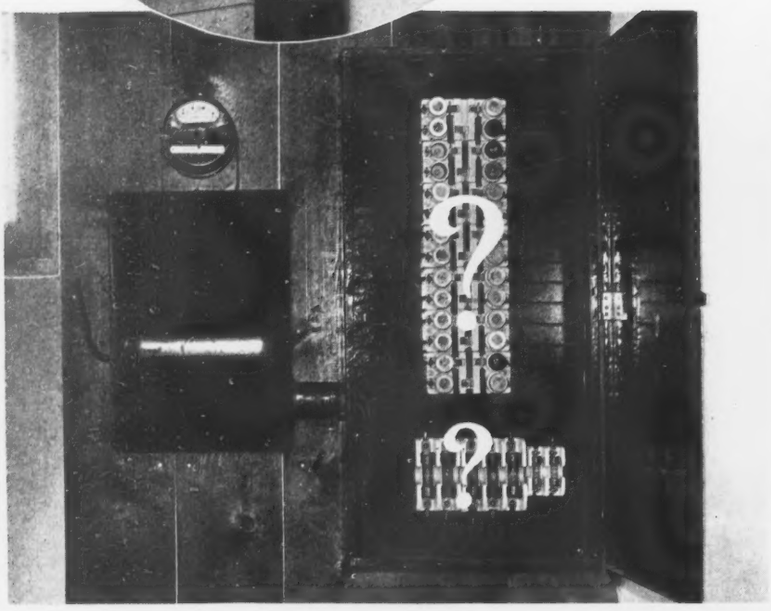
Are These Samples of "Model Electrical Construction?"

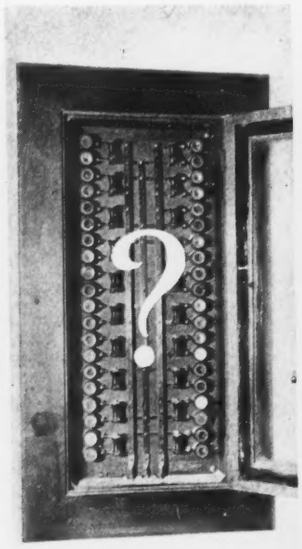


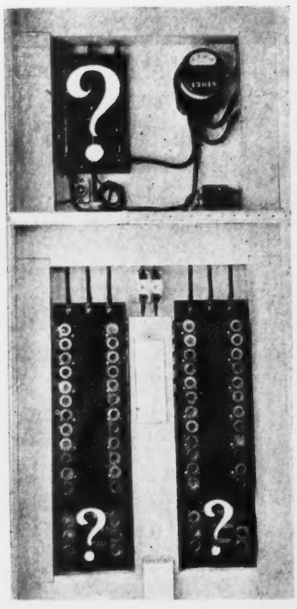
Installed as Model Wiring Jobs in Model Electrical Homes, They Reveal Glaring Personal-Injury and Shock Hazards, from Exposed Knife Switches, Open Fuse Panels, and Uncovered 220-110-Volt Busbars!

THE PHOTOGRAPHS on this page have been assembled from sets of pictures taken, not at random, *but of model electrical homes* (!) in all parts of the country. Each, therefore, evidently illustrates the kind of electrical construction which the electrical men of its particular locality regard as "the last word in convenience and safety." Yet are these jobs to be rated as 100%?

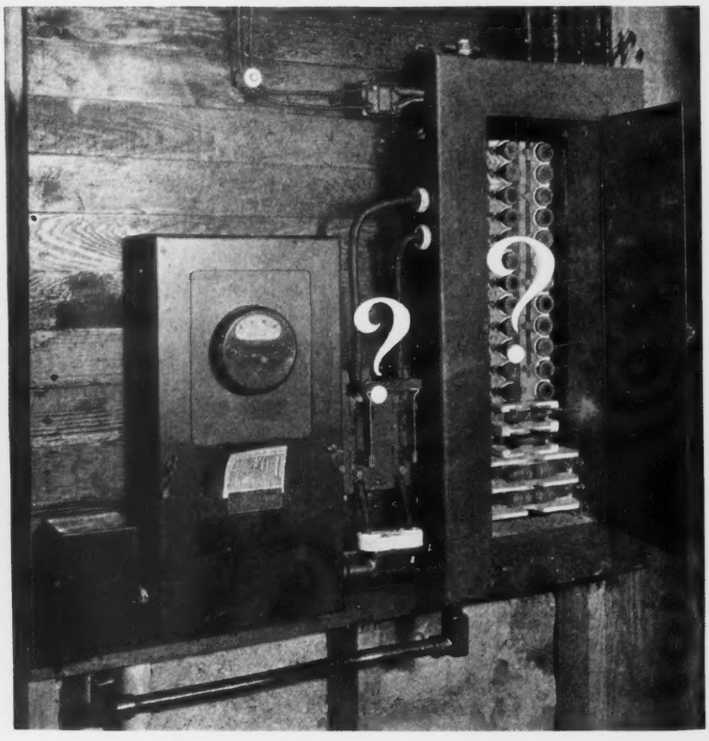
Is it commonsense to carefully cover up circuits everywhere *except at the switch, where the layman has to handle live parts?* Is it commonsense to leave busbars exposed, where they may give rise to terrific "shorts" which will persist, with danger to flesh, eyesight and property, until the main fuses blow? Is it commonsense to have the branch and other fuses surrounded by live parts so that the woman or man who tries to replace a fuse may receive a bad shock or a "flash"? How long will it be before electrical men generally begin to observe the commonsense rule that *"All live parts of circuits accessible to laymen be covered against accidental contact"?*











Electrical Merchandising Pictorial, December, 1922

Washing-Machine Selling Costs in Chicago

Commonwealth Edison Electric Shop Figures Presented by John F. Gilchrist in French Lick Springs Paper, and Comments by Washing Machine Manufacturers Association

IN HIS address before the Great Lakes Section, N.E.L.A., at French Lick Springs, Ind., Sept. 29, John F. Gilchrist, chairman of the Merchandising Policy Committee of the National Electric Light Association, presented figures on the cost of selling washers in the electric shops of the Commonwealth Edison Company, of which he is vice-president. These figures have attracted wide interest, particularly in the washing-machine field. Mr. Gilchrist's observations on washing-machine selling in Chicago are given below, and are followed by a statement from the secretary of the American Washing Machine Manufacturers Association on other experiences in washing-machine selling in the Chicago territory.—*Editor.*

The Actual Costs of Selling Washers in the Edison Shops, Chicago

By John F. Gilchrist

Chairman Merchandising Policy Committee, N.E.L.A. Vice-president Commonwealth Edison Company, Chicago.

IN CHICAGO we have been selling a machine for $192.20 which costs the Commonwealth Edison Company $94.50 in lots of five or more. When many of the other companies in more or less of a panic reduced their prices on washing machines, this company increased its price, as it had found that it was obliged to do so in order to sell a dependable machine and get out whole. Many of the people in the company, especially the salesmen, felt that the increase in price would cut down the sales very decidedly, but the reverse has been true, due to the increased advertising and the increased salesmen's commissions which were possible. The company nets more money per machine, and sales are practically double what they were eight or ten months ago under the former policy.

But now comes the point which I wish to make particularly. There were so many people in the company who believed that we were selling at too high a profit that the writer called in the services of unbiased expert accountants to analyze the washing-machine business, and in the tables given below you will find the results for the months of June and July of this year in percentages. While some of the costs may be open to question, and while a lot of you may think that you can do business a great deal better than the company in question, these are the actual costs. To the very great surprise of everyone, they showed that even on these higher prices the machines were being sold at a loss instead of a profit. You can well imagine that this was a very great shock, when we were proceeding from the standpoint of trying to justify a relatively high price, and I say to you here, that notwithstanding the opinions you have, if you will go into your figures and have your experts analyze them as thoroughly as in the company to which I refer, and get as broad a grasp of the situation, you will, I am satisfied, find that the final net profits on the washing machines you are selling are not on a satisfactory basis.

The situation with reference to the sale of washing machines, while extreme, is more or less typical of the entire merchandising situation, and it is time for everyone in the business to give careful attention to these features.

An Analysis of Washer Selling Costs in Various Chicago Electrical Stores

By E. B. Seitz

Secretary American Washing Machine Manufacturers Association, Chicago.

WASHING-MACHINE men feel that a grievous wrong was done the washing-machine industry by Mr. Gilchrist in giving publicity to a chart of figures showing the operative cost of the Commonwealth Edison Company in merchandising washing machines, when that chart does not include more detailed information. Let us look first at the chart of figures reproduced here on the "Average Cost of Selling Washers," reducing his percentages to dollars and cents. His chart of figures

What the Commonwealth Edison Company Would Have Lost on Washing Machine Sales Had It Charged Up All Selling Costs, as an Independent Dealer Would Have Had to Do *

STATEMENT OF AVERAGE UNIT COST OF SELLING WASHING MACHINES FOR THE MONTHS OF JUNE AND JULY, 1922

	June, Per Cent		July, Per Cent	
Average net selling price	100.0		100.0	
Average cost per machine sold	56.6		58.0	
Gross profit per machine		43.4		42.0
Average expenses per machine sold —				
Selling:				
Commissions	17.8		18.7	
Bonus	0.8		0.8	
Premiums	1.8		2.7	
Demonstrating	1.4		1.7	
Salaries, adjustment and sundries	1.6		2.2	
Delivery and salesmen's automobiles	4.0		5.7	
Repairs	1.1		1.6	
Total selling	28.5		33.4	
Buying	2.1		2.5	
Occupancy	3.6		4.2	
Publicity	4.9		4.6	
Administrative	8.5		12.2	
Overhead expenses	19.1		23.5	
Total expenses		47.6		56.9
Average loss per machine		4.2		14.9

AVERAGE COST OF SELLING WASHERS, TREATING PREMIUMS AS A REDUCTION OF PRICE INSTEAD OF A SELLING EXPENSE

	June, Per Cent		July, Per Cent	
List price	100.0		100.0	
Average allowance	1.2		2.9	
Average premium	1.7		2.5	
Average cash discount	0.3		0.6	
Average price reduction	3.2		6.0	
Average selling price	96.8		94.0	
Cost of washer	54.0		54.0	
Gross profit per washer		42.8		40.0
Expenses as above, exclusive of premiums		47.1		51.9
Average loss per washer		2.3		11.9

*As a matter of fact, with the economies possible to a big central-station organization doing this business as a side issue to a much larger business, the company probably made a little money.

Washing-Machine Selling Costs in Chicago

Commonwealth Edison Electric Shop Figures Presented by John F. Gilchrist in French Lick Springs Paper, and Comments by Washing Machine Manufacturers Association

IN HIS address before the Great Lakes Section, N.E.L.A., at French Lick Springs, Ind., Sept. 29, John F. Gilchrist, chairman of the Merchandising Policy Committee of the National Electric Light Association, presented figures on the cost of selling washers in the electric shops of the Commonwealth Edison Company, of which he is vice-president. These figures have attracted wide interest, particularly in the washing-machine field. Mr. Gilchrist's observations on washing-machine selling in Chicago are given below, and are followed by a statement from the secretary of the American Washing Machine Manufacturers Association on other experiences in washing-machine selling in the Chicago territory.—*Editor.*

The Actual Costs of Selling Washers in the Edison Shops, Chicago

By John F. Gilchrist

Chairman Merchandising Policy Committee, N.E.L.A. Vice-president Commonwealth Edison Company, Chicago.

IN CHICAGO we have been selling a machine for $192.20 which costs the Commonwealth Edison Company $94.50 in lots of five or more. When many of the other companies in more or less of a panic reduced their prices on washing machines, this company increased its price, as it had found that it was obliged to do so in order to sell a dependable machine and get out whole. Many of the people in the company, especially the salesmen, felt that the increase in price would cut down the sales very decidedly, but the reverse has been true, due to the increased advertising and the increased salesmen's commissions which were possible. The company nets more money per machine, and sales are practically double what they were eight or ten months ago under the former policy.

But now comes the point which I wish to make particularly. There were so many people in the company who believed that we were selling at too high a profit that the writer called in the services of unbiased expert accountants to analyze the washing-machine business, and in the tables given below you will find the results for the months of June and July of this year in percentages. While some of the costs may be open to question, and while a lot of you may think that you can do business a great deal better than the company in question, these are the actual costs. To the very great surprise of everyone, they showed that even on these higher prices the machines were being sold at a loss instead of a profit. You can well imagine that this was a very great shock, when we were proceeding from the standpoint of trying to justify a relatively high price, and I say to you here, that notwithstanding the opinions you have, if you will go into your figures and have your experts analyze them as thoroughly as in the company to which I refer, and get as broad a grasp of the situation, you will, I am satisfied, find that the final net profits on the washing machines you are selling are not on a satisfactory basis.

The situation with reference to the sale of washing machines, while extreme, is more or less typical of the entire merchandising situation, and it is time for everyone in the business to give careful attention to these features.

An Analysis of Washer Selling Costs in Various Chicago Electrical Stores

By E. B. Seitz

Secretary American Washing Machine Manufacturers Association, Chicago.

WASHING-MACHINE men feel that a grievous wrong was done the washing-machine industry by Mr. Gilchrist in giving publicity to a chart of figures showing the operative cost of the Commonwealth Edison Company in merchandising washing machines, when that chart does not include more detailed information. Let us look first at the chart of figures reproduced here on the "Average Cost of Selling Washers," reducing his percentages to dollars and cents. His chart of figures

What the Commonwealth Edison Company Would Have Lost on Washing Machine Sales Had It Charged Up All Selling Costs, as an Independent Dealer Would Have Had to Do *

STATEMENT OF AVERAGE UNIT COST OF SELLING WASHING MACHINES FOR THE MONTHS OF JUNE AND JULY, 1922

	June, Per Cent		July, Per Cent	
Average net selling price	100.0		100.0	
Average cost per machine sold	56.6		58.0	
Gross profit per machine		43.4		42.0
Average expenses per machine sold—				
Selling:				
Commissions	17.8		18.7	
Bonus	0.8		0.8	
Premiums	1.8		2.7	
Demonstrating	1.4		1.7	
Salaries, adjustment and sundries	1.6		2.2	
Delivery and salesmen's automobiles	4.0		5.7	
Repairs	1.1		1.6	
Total selling	28.5		33.4	
Buying	2.1		2.5	
Occupancy	3.6		4.2	
Publicity	4.9		4.6	
Administrative	8.5		12.2	
Overhead expenses	19.1		23.5	
Total expenses		47.6		56.9
Average loss per machine		4.2		14.9

AVERAGE COST OF SELLING WASHERS, TREATING PREMIUMS AS A REDUCTION OF PRICE INSTEAD OF A SELLING EXPENSE

	June, Per Cent		July, Per Cent	
List price		100.0		100.0
Average allowance	1.2		2.9	
Average premium	1.7		2.5	
Average cash discount	0.3		0.6	
Average price reduction		3.2		6.0
Average selling price		96.8		94.0
Cost of washer		54.0		54.0
Gross profit per washer		42.8		40.0
Expenses as above, exclusive of premiums		45.1		51.9
Average loss per washer		2.3		11.9

*As a matter of fact, with the economies possible to a big central-station organization doing this business as a side issue to a much larger business, the company probably made a little money.

is on the percentage basis. A charge of 2.5 per cent for buying in July does not look so bad written as a percentage, but when it is known that he is making the washing machine carry a cost of $4.37½ for the support of a purchasing department whose sole duty in buying the Federal electric washer consists of ordering from the Federal Electric Company, a company closely allied with the Commonwealth Edison Company, what independent dealer or even central station manager is going to see anything in that load that is comparable with his own case?

Again, occupancy for July is 4.2 per cent, but this in dollars and cents means that for the very high-priced floor space that the washing machine occupies in the Commonwealth Edison's "Loop" and branch stores each must carry the burden of $7.35. In his chart of figures he has allowed for commissions, bonuses, demonstrating, delivery and salesmen's automobiles together with salaries, yet in addition to this comes the administration burden in July of $21.35 per machine. The point of cleavage for all overhead will have to be moved several notches in the opposite direction before the washing-machine merchandisers of this country will have much sympathy for a great company that by its books can show a loss of $24.85 per machine in July as long as that machine carries with it an overhead of $21.35 for administration alone.

Another Chicago Retailer's Cost

For the purpose of comparison I obtained a chart from the books of another company that is doing a retail business in Chicago. The comparison of these two charts is fair for the reasons that they reflect practically the same amount of business for the month taken, that they cover the same midsummer month, and that in each instance the management of the store is very closely allied with the manufacturer of the machine handled.*

TABLE II—COST OF SELLING WASHERS BY ANOTHER CHICAGO RETAILER—SAME MONTH

	Amount	Percentage
Net sales	$52,964.10	100.00
Cost of machine	33,733.40	63.76
Gross	$19,190.70	36.24
EXPENSE:		
Selling:		
Commission	$2,970.11	5.61
Salaries	5,211.66	9.84
Demonstrations	333.44	0.63
Services and repairs	239.38	0.46
Delivery	631.19	1.29
Miscellaneous: postage, telephone, lights, sundries	1,184.81	2.13
Total	$10,570.59	19.96
ADMINISTRATIVE:		
Rent	$3,310.00	6.25
Reserve for bad accounts	264.56	0.50
Advertising	1,689.99	3.19
Insurance	41.00	0.07
Total	$5,305.55	10.02
Total expense	15,876.14	29.98
Net profit	3,314.56	6.28

TABLE I—AVERAGE COST OF SELLING TYPE "L" ELECTRIC WASHING-MACHINE BY COMMONWEALTH EDISON COMPANY

(List Price $175)

	June		July	
	Percentage	Amount	Percentage	Amount
Average allowance	1.2	$2.10	2.9	$4.57½
Average premium	1.7	2.97½	2.5	3.87½
Average cash discount	0.3	.52½	0.6	1.05
Average price reduction	3.2	5.60	6.0	10.50
Average selling price	96.8	169.40	94.0	164.50
Cost of type "L" washer	54.0	94.50	54.0	94.50
Gross profit per type "L" washer	42.8	74.90	40.0	70.00
EXPENSES:				
Selling:				
Commissions	17.8	$1.15	18.7	$32.72½
Bonus	0.8	1.40	0.8	1.40
Demonstrating	1.4	2.45	1.7	2.97½
Salaries, adjustments and sundries	1.6	2.80	2.2	3.85
Delivery and salesmen's automobiles	4.0	7.00	5.7	9.97½
Repairs	1.1	1.92½	1.6	2.80
Total selling	26.7	$46.72½	30.7	$53.72½
Buying	2.1	$3.67½	2.5	$4.37½
Occupancy	3.6	6.30	4.2	7.35
Publicity	4.9	8.57½	4.6	8.05
Administration	8.5	14.87½	12.2	21.35
Overhead expenses	19.1	$33.42½	23.5	$41.12½
Total expenses	45.8	80.15	49.4	94.85
Average loss	3.0	5.25	14.2	24.85

For further comparison still a third chart is shown which reflects the September operations of a Kansas City store also very closely allied to the manufacturer of the washing machines which it sold.

Where the Salvation Lies

Other charts are obtainable that would reflect much the same story. No doubt, too, Mr. Gilchrist could obtain charts from other large central stations that would reflect expensive operating costs similar to those of the Commonwealth Edison Company, but to what avail? The real solution includes the program announced by Mr. Gilchrist, that retailers must set up accounting that will show accurately their cost of operating and that central stations must separate their accounts so as to reflect the true cost of merchandising appliances, but it does not end there. Manufacturers have just as keen interest as the merchandiser in seeing that the accounting system reflects the cost of every service rendered in the merchandising of washing machines, because the spread and the discounts depend entirely on, first, the total cost of all of these services, and, second, on how many of the total services the dealer performs. For it all sooner or later comes down to this: Accounts on washing machines must be based upon services rendered. This applies to the jobber as well as to the dealer.

It is wholly unfair that the dealer who waits for a limited amount of business to come to him and obtain it because of the aggressiveness of the other fellow's advertising and the general washing-machine atmosphere that has been created in his community by his competitor should receive the same discounts as those who do sales-creative merchandising. I believe that the time is not far distant when jobbers and dealers in this country will be classified according to the services they are prepared to render and do render, and that discounts will be graded accordingly.

And finally, in the consideration of all that Mr. Gilchrist has said and that I have written here, it must be kept in mind that executives of our country's great central stations must fully comprehend the profound import of this fundamental axiom: "The future of the central-station industry depends upon the invention, development and general application of devices designed to utilize electrical energy in the accomplishment of the tasks of human existence."

TABLE III—COST OF SELLING WASHERS BY KANSAS CITY RETAILERS IN SEPTEMBER

	Amount	Percentage
Net sales	$17,835.25	100.00
Cost of machines	10,701.15	60.00
Gross	7,134.10	40.00
EXPENSE:		
Advertising	$747.50	4.19
Automobile expense	40.87	0.23
Depreciation	87.30	0.49
Freight, express and drayage	268.38	1.5
General expense	183.09	1.02
Telephones, light and water	34.74	0.19
Insurance	27.88	0.15
Interest	175.20	0.98
Office expense (including postage)	39.77	0.22
Rent	376.42	2.11
Salaries	906.82	5.08
Selling expense	1,453.10	8.14
Taxes	41.34	0.23
Discounts	20.01	0.11
	$4,402.42	24.67
Gross profit	$7,134.10	40.00
Total expense	4,402.42	24.67
Net profit	$2,731.68	15.33
Merchandise inventory	$8,960.22	.....

*In comparing washing machine selling costs in the Chicago territory, it should also be remembered that the tremendous washing machine advertising and agitation conducted by the Commonwealth Edison Company, undoubtedly assists greatly in making local sales of washers, enabling dealers to sell more cheaply than they would if they did not follow up the Commonwealth Edison advertising.—*Editor.*



"On the American Plan"

Italy's First Home Electric

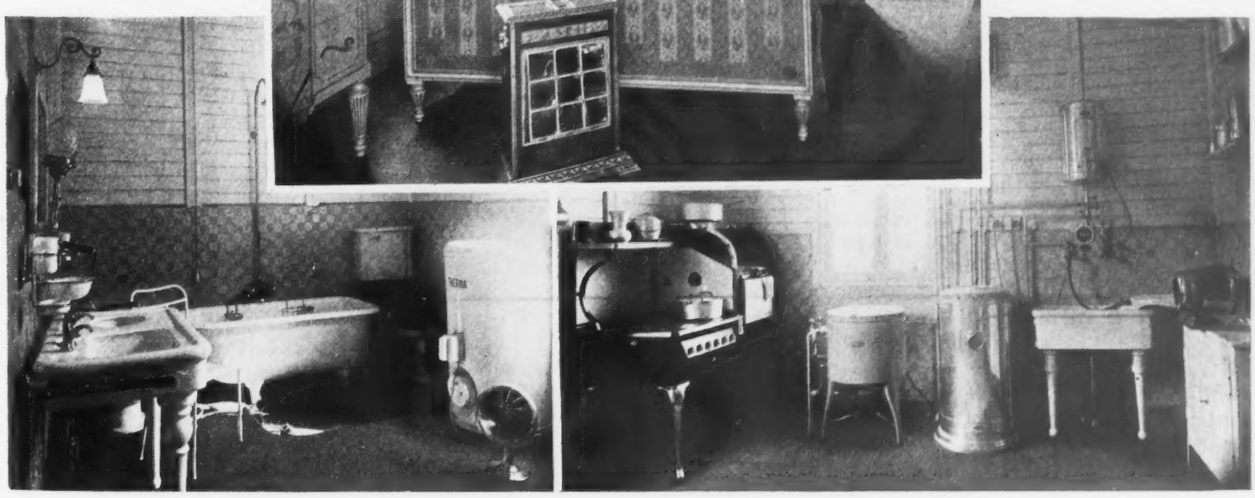
ITALY! To pronounce the name is to think of art, of music, of sunken gardens, St. Peter's, terra cotta, gondolas, al fresco—and, being American, of hurdy-gurdies, spaghetti and red handkerchiefs.

But Italy, because of her progress in water power development, has come to the fore, of the nations in Europe, in her interest in electricity, and in applying the benefits of electricity to the home. The first Home Electric exhibited on continental Europe was in Italy. It was opened this spring, in Turin, and followed the American plan in all respects, even to the "record attendance," which has been reported, with characteristic Gallic enthusiasm, as averaging 12,000 on week-days and 30,000 on Sundays, over a period of thirty days!

However that may be, the Home was staged as part of the International Home Building Exposition held at the Turin Stadium from April 20 to May 20. It was the result of the combined efforts of the group of central station companies of the Piedmontese region at the suggestion of Prof. G. G. Ponti, who is the general manager of most of them and had an opportunity to see the American Homes Electric in full swing on his tour here last year.

Beautifully furnished, and wired and equipped electrically far in advance of ideas generally prevailing in Italy, the Home Electric attracted crowds of unexpected size. In fact, the novelty proved so much of a success, particularly with the Italian matrons, that it was found necessary to close the house after a month in order to enlarge and refurnish it. It was opened again on June 1 and remained open until the end of that month. To satisfy the general interest in it, several special night receptions were given.





What to Tell 'Em in the Home Electric

A Series of Lectures Which May Be Used to Explain and Interpret All the Appliances and Tell the Story of Modern Electric Service

THE GREAT problem in the Home Electric is how to tell the story to the people when they come. A popular Home Electric to which a thousand people may be thronging day after day needs more than a furnished house completely equipped with electrical appliances. It needs more than a staff of attendants who will receive the visitors as they come. It needs more than a well organized system for routing this heavy traffic through the house. It needs a definite and workable plan for telling the story that these people have come to hear as well as to see. For the contents of a Home Electric cannot be left to shift for itself under such circumstances. It must be explained and interpreted, so that the whole story will not only be well told, but told completely to each individual who passes through this demonstration house.

In the course of the five Home Electric demonstrations that have been held in Cleveland in the last two years, this problem has been exhaustively studied, with the result that at Cleveland they have perfected a series of lectures that have proved most effective.

Usually the Weak Spot in "Home Electric" Displays

The Home Electric lectures were originally written for use in the first home, opened early last year. The visitors were ushered through the house in groups of convenient size—a party of from 15 to 20 persons is easiest handled—and in the different rooms where the appliances were featured a man or a woman gave a short talk on the points of interest in that room, pointing them out and explaining each one. As the demonstration progressed, this or that phrase was eliminated and new features added to the lectures. The lectures were further revised for Home Electric No. 2 and again for No. 3 and No. 4. Each time new experience would bring some new refinement so that these talks in use today in Cleveland represent the product of an exhaustive study and a patient, constructive evolution, and may be taken as a model for Home Electric lectures anywhere.

Many criticisms have been heard of Home Electrics where insufficient attention has been given to this feature of the enterprise. People have gone to see what they could see, and have been forced to ask many questions, in the endeavor to find out what the different appliances were for. This slows up the traffic in the house, necessitates endless repetition and usually elicits but perfunctory answers that convey incomplete information and greatly reduces the good impression which the demonstration might make. These lectures, therefore, have been planned to tell the whole story in simple understandable language, by easy stages, and in a logical sequence, so that the spirit of electric service can be vividly pictured and the visitor will leave the house with a new appreciation of the comfort, convenience and charm of electricity in the home.

In the fourth Cleveland Home Electric, in which these lectures were used in their present perfected form, a staff of seven women and three men were employed. Guests were conveyed through the house in groups of 15, one group passing into a room as soon as the preceeding group passed out. It took 35 minutes for each group to complete the trip through all the rooms. They passed through at the rate of about one thousand daily. They were constantly in charge of an attendant who had been schooled in the delivery of a definite message from which she did not vary, except to answer chance questions at the end of the talk. As these guests proceeded from room to room they listened to the following story delivered in the form of seven short lectures:

LECTURE I—IN THE LIVING ROOM

It is the desire of everyone to own a home, for it is around the home that our civilization is built. The problems involved in the building of efficient homes will become greater with each passing year.

The day of servants is rapidly passing, and it is the solution of this servant problem which most interests the home builder of today. Architects are helping by designing convenient arrangement of the rooms; however, when the rooms are built there is but one factor that will be of material aid in replacing servants. This is electricity, and its appliances; which are daily being brought to a higher state of perfection that they may lighten the burden of the housewife.

Purpose of Exhibit. Your dwelling place, whether it be a mansion, apartment or cottage, offers some problems in convenience, comfort or lighting for which you are seeking the solution; and it is to aid you in solving these problems that the Electrical League of Cleveland, co-operating with the real-estate company, has opened this beautiful home to public inspection. We know in passing through you will obtain some idea or suggestions which will aid you in planning your future home or making your present dwelling more livable.

Shaded Lights. Lighting is an important item, for it should fulfill not only its mission of usefulness, but should also provide a method of artistic decoration. Bright, unshaded lights are a menace to vision and add nothing to the artistic appearance of a room. Shades, if thoughtfully selected to harmonize with interior decorations add greatly to the charm and at the same time protect the eyes from harmful glare. Shades may be of glass, parchment or silk, or any combination of these which taste dictates.

Convenience Outlets. Convenience outlets are what the name implies. They should be located in the walls, wainscoting or baseboard at the point where they will offer the greatest measure of convenience in supplying electrical current for lighting, heating, performing household tasks, or aiding the hostess in serving her guests. Receptacles which enclose all charged parts, and are connected by means of push blades instead of a screw plug, are best for home use.

The living room is the general gathering place of the family for rest or recreation, and the electrical demands which it makes are many. In order to anticipate these needs, ample provision in the way of convenience outlets should be made, as these will furnish a means of obtaining current for portable lamps for local or general lighting and at the same time will provide a supply of electricity to permit the use of the chafing dish, or such electrical cooking devices

as the hostess may require in serving a light repast to her guests. The living room should be provided with a convenience outlet for every ten feet of baseboard. To fulfill its electrical requirements, every living room should have at least three such outlets.

LECTURE II—IN THE DINING ROOM

Since the dining table commands most of our attention in this room, the lighting should be so arranged that it will focus on this spot.

Lighting. A properly selected lighting unit for the dining room is one that is so shaded as to throw a bright illumination on the dining table, and shed a soft light throughout the rest of the room. It should be hung so that no direct rays will shine into the eyes of the diners. Shaded side-lights or candle sticks on the buffet will furnish soft local light and add an artistic touch in harmony with the decorations.

Appliances. While the beauty of the table service is still the keynote of the dining room furnishing, electrical appliances provide an added measure of usefulness, which enables the hostess to serve her guests without the embarrassing necessity of leaving the table. The electric percolator makes better coffee; and a touch of coziness is added where the coffee is prepared at the table. Less than one cent is required for current. Golden brown toast, hot from the electric toaster, is difficult to resist in the morning. Toast for the family breakfast costs less than one cent to prepare electrically, and never tastes scorched. The electric grill will furnish a means of preparing almost an entire meal at the table. Chops, steaks, eggs and even biscuits may be cooked on this little stove. The cost of operation depends on the quantity of food cooked. If you like waffles, an electric waffle iron will provide them as often as you wish; cooked electrically at the dining table, the cost for current is three cents.

Convenience Outlets. Electricity is able to help us perform almost every household task. It is and will, if we are thoughtful and foresighted enough to prepare a means of having it accessible when it is needed. Convenience outlets are the answer to the servant problem, for with them we are enabled to use the various electrical labor savers which make the difference between drudgery and pleasure in house-keeping. These handy outlets may be located where they will best serve our needs. One in the floor under the table affords a means of obtaining current which adds largely to the convenience in the dining room.

Wired Furniture. The buffet is also a proper place for the location of convenience outlets. These afford a means of providing light for candle sticks and lamps, or a fan may be connected at this point during the hot weather. A wired tea cart offers a very happy medium of serving light refreshments to guests. It may be moved to any part of the house and, when connected to a convenience outlet, will afford an easy means of using the chafing dish, toaster, urn or other cooking devices.

Wiring. The electrical requirements of the dining room are such that extra care and thought should be given its planning. Convenience outlets located at all points where the larger pieces of furniture may be placed should be provided. A floor outlet in the center of the room is highly desirable. At least three convenience outlets are necessary in the well planned dining room.

LECTURE III—IN THE BEDROOM

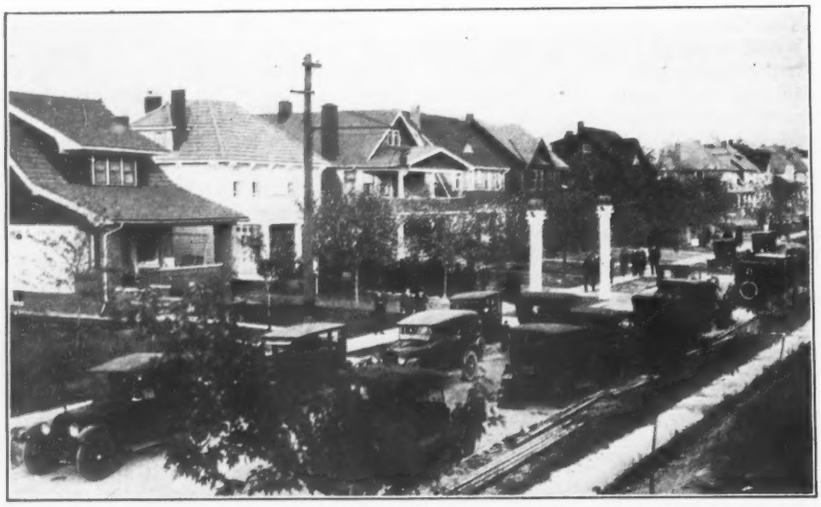
Electricity not only provides comfort and relief from the fatiguing tasks during our waking hours, but it also adds a measure of comfort and security while we sleep.

Fixture Receptacles. The use of local lighting for the dresser in the bed room has long been a problem to the house wife. Wall brackets when used in the past have not permitted a rearrangement of furniture, which would permit proper lighting. Recent developments however, make it possible to overcome this difficulty by two methods —fixture receptacles in the wall, and



The Fifth Cleveland Electrical Home. Although exhibited under the auspices of the Cleveland Electrical League, the entire expense for publicity, salaries and miscellaneous items was paid by the real estate company, the Representative Realty Company of Cleveland, who will build approximately three hundred and sixty homes this year. This assumption of the publicity expense is in marked contrast to the 1921 arrangement when the Electrical League itself assumed the entire expense of operating three homes. In 1922 the expenses of the Fourth Home were paid seventy-five per cent by the League and twenty-five per cent by the builder.

In addition to the two homes which have been displayed by the Electrical League in 1922, two additional homes are now being exhibited to the Cleveland people by individual builders in co-operation with two local contractor-dealers.



How the crowds turn out to see an Electrical Home. This is Cleveland's *Fifth* such display, yet the interest continues unabated. Note the flood light pylons at the curb. These mark the location of the Home by day, and light the building by night.

dresser lights permanently attached to beds and dressers permit a re-arrangement of furniture. Elexits may be installed in the wall or ceiling permitting the hanging or removal of lighting fixtures in much the same manner as pictures are hung or removed. When the fixture is not in use an ornamental plaque may be used to cover the outlet, adding a decorative touch.

Dresser Lights. A very desirable method of supplying local light to dressers, dressing tables and beds is furnished by the use of fixtures permanently attached to these pieces of furniture and connected to convenience outlets.

Convenience Outlets. In the bed room, these are of particular value in facilitating furniture re-arrangement and attaching various electrical toilet appliances. A casual glance in the bed room of your own home will clearly establish the fact that at least three convenience outlets are necessary to meet the electrical requirements of even a moderate sized bed room. Some of these should be twin outlets.

Master Switch. Electricity promotes safety and secures us against unpleasant surprises. A master switch installed in the principal bed room is a source of security from intruders and is not costly. This switch should control a series of lights both inside and outside the home, so that they may be flashed on from one point and while an investigation of any disturbance is being made, and may not be turned off from any other point in the home. This affords a large measure of protection to the householder and his family and acts as an insurance against intrusion.

Sick Room Emergencies. In the bed room, provision should be made to meet the emergencies which arise due to illness, when it is often necessary to have such comforts, and conveniences as are not ordinarily used. A fan for use in summer creates cooling breezes and relieves the restless wakings of hot nights. Lamps which give off a soft low light serve to relieve the monotony of long dark hours. The cost of operating these sick room conveniences is so small that no one can afford to build a home without making provision for their use as a measure of insurance against emergencies.

Sewing Machine. Because of its compactness and light weight, the electric sewing machine may be used in any desired room of the home. A touch of the electric control, and seams are rapidly made. Pleating and hemstitching are easily done and all tiring physical effort is entirely eliminated. Electricity will sew an entire day for you for a few cents.

Vacuum Cleaner. No home is complete without a vacuum cleaner. They are made in several types and help to lighten the drudgery of housecleaning. Rugs and carpets are thoroughly cleaned without removing them from the floor. Threads and lint are drawn or swept into the cleaner by the good electrical fairy.

LECTURE IV—IN THE GUEST ROOM

It is not a difficult matter to become a slave to custom, in fact it is much easier to follow along in the beaten path than it is to think and act along original lines.

Wired Furniture. The use of wired furniture in the home is becoming firmly established, and by this means, we are able to have electricity constantly at our instant command for all our requirements of both lighting and personal service. Where articles of bed room furniture are equipped with convenience outlets and permanently attached lights, it is possible to move this furniture to almost any location in the room, and then by connecting it to a convenience outlet in the wall or baseboard we will still have current at hand for all purposes.

Electric Heating Pad and Immersion Heater. The electrically wired bed furnishes a means of connecting not only a reading lamp, but affords a most convenient method of using a warming pad. Electric warming pads must be used to be appreciated. They fulfill all the missions of the hot water bottle, without its unpleasant habit of leaking. The heat may be regulated to the desired degree and it will hold this temperature indefinitely. Three cents will furnish the current for an entire night. With children in the home, a handy means of warming water or food is almost indispensable. An immersion heater and the use of wired furniture fulfill the requirements of the case.

Toilet Appliances. To make a discriminating toilet, it is necessary to have both good light and the required electrical appliances. A wired vanity dresser has its own lights placed just where they furnish the desired illumination. Since bobbed hair is the vogue, the curling iron is used more than ever and with wired bed room furniture, it is always possible to have a source of current with which to heat it, without unscrewing a lamp from the fixture. The vibrator is a necessary appliance which contributes to the ladies' toilet. It fulfills another mission also in the treatment of local colds, headaches or for general massage. To wash and dry the hair requires considerable time and exertion, and frequently causes one to take cold. A hair dryer, dries the hair rapidly and thoroughly, and will supply a stream of hot or cold air as the operator wishes.

Convenience Outlets. As in all other parts of the home, convenience outlets are the answer to obtaining the service which relieves the drudgery of housekeeping and adds a large measure to our comfort and the joy of living. Plan your rooms with an eye to future needs and you will be amply repaid in convenience and comfort.

LECTURE V—IN THE KITCHEN

Lighting. In this work room of the house, a great deal of the efficiency and comfort will depend upon the lighting. A center ceiling outlet will furnish general illumination. However, it is well to provide another outlet for lighting over the sink, and sometimes over the range. These local lights will prevent shadows being thrown on the work at these points.

Shades. Glass shades of a diffusing quality should be used on these fixtures and the ceiling light should be completely enclosed in glass of this character. This will prevent the collection of dust on the lamp and will increase its lighting efficiency.

Electric Range. Health, comfort, and efficiency are promoted by the use of the electric range. No fumes are possible. The air of the electrical kitchen is so pure that plant life will thrive. This is not possible where gas or other fuel is used.

The heat used in an electric oven does not effect the temperature of the room

because the oven is so constructed as to prevent this, and in consequence all the heat is applied directly to its task of cooking the meals, and not cooking the cook. This makes comfort. Roasts prepared electrically retain most of their original weight because there is no evaporation of the juices, adding greatly to their flavor also. It is also true that no soot or grease may be burned on the pans used for cooking in the electric oven, which eliminates that most disagreeable task of scouring. This makes efficiency. And the cost of operating an electric range, when properly managed, will not be excessive.

Electric Dishwasher. Washing dishes often kills the joy of entertaining for the hostess. This disagreeable task is accomplished efficiently and quickly in an electric dishwasher. The dishes are not only thoroughly washed, but are also sterilized and dried. The electricity consumed in washing dishes for a family costs less than one cent a day.

Electric Refrigerator. The saving of food is as important an item in the home as its purchase or preparation. During the hot months the demand for ice varies in accordance with the weather and it is not always possible to obtain ice service when it is most desired. The electric refrigerator furnishes a constant and reliable means of preserving foods and also provides a supply of ice sufficient for ordinary table use. The refrigerating mechanism may be located either in the box itself or in the basement and costs but a few cents a day to operate.

Wiring. It is said that a chain is only as strong as its weakest link. This is also true of your electrical service. If great thought is not given to both present and future electrical needs when planning your home, you will find yourself unable to take advantage of the many efficient electrical appliances which are daily being developed to lighten the burden of housekeeping.

LECTURE VI—IN THE LAUNDRY

As the laundry is usually located in the basement, it is necessary to provide artificial light. Varying conditions of cloudiness make it impossible to depend on the sun as a source of light; consequently it is necessary that ample lighting be provided in this department of the home.

Location. The working efficiency of the laundry will be greatly increased if general illumination is provided from a center ceiling outlet and by local lighting at points in which special tasks are to be performed. These lighting outlets should be located over the laundry trays, the ironing machine and near the ironing board; which should also be located in the laundry.

Electric Washing Machine. The electric washing machine lightens the drudgery of laundry work and increases the efficiency of the laundress. It will wash any article of clothing, from a single handkerchief to a rag rug, and in half the time it can be done by hand. The electric motor also wrings the articles washed, dryer and more quickly than it can be done by hand, and eliminates this muscle racking job. The current for the washer should be supplied from a ceiling outlet especially located with a view to convenience near the laundry trays.

Electric Dryer. Because of adverse weather conditions for drying it is often necessary to postpone the laundrying and thus confuse the entire household schedule. An electrically heated dryer will dry the clothes as rapidly as the washer cleanses them. A turn of the switch and warm air is forced through the clothes, in a gentle, drying breeze, with no odor, no grease and no smut. This appliance will dry entire laundry for 25 or 30 cents.

Electric Ironing Machine. The real drudgery of laundrying comes when the washing and drying has been completed. To stand over an ironing board all day requires not only considerable physical strength, but great endurance also, and it is this work that is most dreaded by the average housewife. With an electrically heated ironing machine most of the ironing may be done as rapidly as it comes from the dryer, without any physical exertion on the part of the operator. Electricity furnishes an ideal means of heating the ironing shoe. No fumes to produce a headache, no smoke, no soot to soil the clothes. The cost for doing the average family ironing electrically is 25 or 30 cents. The electric hand iron is now used in 90 per cent of the homes.

Wiring. The electrical essentials of a good home laundry are: Plentiful light, well shaded; convenience outlets for the washer, ironer and hand iron and special outlets for the dryer and ironing machine. For sanitary reasons, as well as for health and efficiency, electricity always should be used for drying and ironing clothes.

LECTURE VII—BY SECOND FLOOR TRAFFIC DIRECTOR

Switches for Control.—Not only in the various rooms of the home does electricity play its part, but in the halls and on the stairways it is also an important factor in the comfort and safety of the home.

To be able to "Light Your Way As You Go" is an important item in the home, as it eliminates dark corners which sometimes create fear in the hearts of both young and old, but it also saves the loss of tempers due to stumbling about in unlighted rooms and hallways.

Three-way Switches. The solution to this problem lies in the use of switches for the control of lights. Three-way switches permit the control of lights from two points: for instance, a light on the second floor may be either lighter or extinguised from both the first or second floor.

Four-way Switches. However, lights may be controlled from several points by the use of what is known as 4-way switches in combination with 3-way switches. In this home, this idea is carried out by an installation which permits the lighting of the driveway light and the light in front of the garage from four different places: the driveway, the front entrance, the sun room terrace, and the garage itself. Thus the protection which light affords is always at our command.



"Merry Christmas to the Trade!" Say It with "Electrical Merchandising"

EVERY year on the approach of Christmas, electrical jobbers and manufacturers from sea to sea begin to wonder what kind of a little gift they can send out this time to many customers to whom they wish to give some little remembrance. Memorandum pads and books, calendars, paper weights, letter openers and pencils are the old standbys and many a man each season falls back upon one of them with a sigh. And the money is wasted, and the mails are cluttered with a lot of junk that nobody really wants to send and few want to receive. The sentiment, the remembrance is sincerely expressed and gladly received. But the medium is weak and disappointing.

Why not this year give it a practical turn and send as a Christmas greeting a book on selling or a subscription to a magazine of business that your friend can read and profit from? It has become more and more popular to send cards that say "Merry Christmas" and announce that the publishers of *Electrical Merchandising* have been asked to send the magazine to them for a year with the compliments of the season. These cards will be furnished upon request to *Electrical Merchandising*, Tenth Avenue and 36 Street, New York City.

Such a Christmas token is a graceful gift—a monthly reminder of a friendly interest and withal a practical, profitable expenditure of money.

How a Newspaper Will Concentrate Attention on

Electrical Christmas Advertising

SPECIAL attention is to be devoted to Christmas advertising by the California Electrical Co-operative Campaign as the main feature of its "Electrical Christmas" campaign for 1922.

Almost every electrical concern carries increased advertising at this time of year—and it is hoped by a contest which will focus attention on this advertising to increase both the amount of space carried and the value of this space to the electrical concerns. Where similar campaigns are to be carried out in other cities along this plan, it is recommended that the complete text of announcements concerning the contest be submitted to the local post-office authorities to pass upon the mailability of matter relating to the contest.

The plan conceived by the California Electrical Co-operative Campaign to direct reader attention and reader interest toward electrical advertisements is as follows:

First, there will be selected two specific newspapers (morning and evening) with which the Campaign will work in putting over the plan. Each of these newspapers will announce that it is desirous of determining what particular advertising-appeal registers most strongly upon the greatest number of people; and to determine this it is going to conduct a contest in which its readers are to be asked to express their opinions of the advertisements appearing in California publications.

Therefore, the contest arranged will be as follows: Every man, woman and child is eligible to compete. All that is required of contestants will be to look for electrical advertisements appearing in any California newspapers or magazines before the closing date of the contest and when they find one which particularly appeals to them to cut it out. Then every few days contestants should go over the ads they have cut out and eliminate all except the one they think best; and on the day before the contest closes mail in the one which they have left on hand as the best of all, together with their reasons for liking it—whether it is the illustrations, or the reading matter which appeals most—and why it appeals.

The judges, three of the leading advertising men of the city, will then go over the advertisements submitted, together with the contestants reasons, and will select the twelve leaders as the prize winners, to whom will be awarded the twelve "capital prizes." The next fifty will each receive one month's free subscription to the paper conducting the contest.

The twelve "capital prizes" are to be electrical appliances which will be furnished as follows: After a representative meeting of electrical men has decided what they shall be they shall be listed according to their sales value and at the close of the contest the company whose advertisement is adjudged best will contribute the first prize; the second best ad, second prize, etc.

The Home Electric Breaks Into the Movies!

We hold no publicity or advance agent's job for either Buster Keaton or the Associated First National Pictures, Incorporated—but there's a film to be released very shortly, which from all advance announcements is one that electrical dealers throughout the country can capitalize in more ways than one when it is shown in their local theaters.

In the first place, the film is called "The Electric House." In the second place, it is of, by and for the popular comedian, Buster Keaton.

The picture, of course, is by no means intended as propaganda for the all-electrical home. It is merely a new vehicle for the fun-making talents of Buster himself. Nevertheless, indirectly and incidentally, it will popularize the electrical home in a way that thousands of dollars put into serious educational literature would fail to do.

Here's the story of it:

Buster, on graduation from a correspondence school, obtains the diploma of an electrical engineer by mistake. The father of the girl he admires hires him to outfit his home with all modern electrical appliances. While the family is away for a vacation, Buster equips the home with wires, buttons and trick equipment. The family returns, and Buster displays his handiwork, which performs nobly.

From an Automatic Food-Server to a Moving Stairway

Some of the electrical "labor-savers" Buster sets up are: A miraculous "moving track" system of serving food to the dining table directly from the kitchen—the dishes moving automatically round the table and back to the kitchen into the electric dishwasher. An automatic bathtub, which, at a touch of the button at one's bedside, comes sliding into the room. And a moving stairway which takes one up or downstairs at a touch of the button.

We learn from the press agent that it took nearly two months "to devise the strange electric fixtures that introduce much of the good fun that the picture contains."

Watch for "The Electric House" in your local movie theaters! And do a little publicity of your own, at the time the film is shown—of a "real," not a "reel" electrical home.



Buster exhibits his electric stairway, in his new role as electrician in the movie film, "The Electric House." Find out from your local theaters when this film will be shown.

A Survey of Operating Expenses in Department Stores

Figures for 1921 Reported by the Harvard Bureau of Business Research Show General Costs Higher Than 1920, but Peak of Labor, Rent, and Advertising Expense Now Past

IN 1921 the Harvard Bureau of Business Research began a study of operating expenses in department stores in coöperation with the National Retail Dry Goods Association. This study has been continued for a second year, and the results of the investigation are presented in the accompanying tables from a bulletin just issued by the Harvard Bureau, of which Melvin T. Copeland is director.

The cost of doing business, according to the reports received by the Bureau, was higher in department stores in percentage of net sales in 1921 than in 1920. The chief items which were higher in ratio to sales in 1921 were salaries and wages, rentals, and advertising. Many of the smaller items were almost the same in percentage of sales in both years. The gross margin between the cost of the merchandise and the sales was slightly higher in 1921 than in the preceding year, but the difference was less than the increase in total expense; consequently the average net profit was lower in 1921. It is to be noted, however, that the department stores showed an average net profit for 1921 despite the depression, whereas the retail shoe trade, the retail jewelry trade, and the wholesale grocery business, each showed an average net loss for that year.

The department stores from which reports were received for both 1920 and 1921 showed an increase of 4.3 per cent in net sales. This also was in contrast to the other three trades just referred to—the retail shoe trade having shown a decrease of 9 per cent in net sales in 1921, the retail jewelry trade a decrease of 15 per cent and the wholesale grocery business a decrease of 30 per cent in net sales as compared with the preceding year.

OPERATING EXPENSES IN DEPARTMENT STORES IN 1921—301 FIRMS
Net Sales = 100 Per Cent.

	Common Figure, Per Cent
Salaries and wages	15.4
Rentals	2.4
Advertising	2.4
Taxes (Except on buildings, income, and profits)	0.6
Interest (On capital—borrowed and on capital—owned	2.3
Supplies	0.8
Service purchased (heat, light, power, delivery)	0.6
Unclassified	1.2
Travelling	0.5
Communication	0.2
Repairs	0.2
Insurance	0.4
Depreciation—Losses from bad debts	0.2
Other depreciation	0.5
Professional services	0.1
Total expense	27.8

Reports on operating expenses in 1921 were received from three hundred ninety-two department stores with an aggregate volume of sales of $724,820,000. The summaries in this bulletin, however, are based on the reports from three hundred one firms with an aggregate volume of sales of $496,238,000.

Salaries and Wages

The common figure for salaries and wages was 15.4 per cent of net sales in 1921. The lowest figure for this item was 9.9 per cent and the highest figure 29.2 per cent of net sales. These high and low figures were quite exceptional, however, and a majority of the firms reported salaries and wages between 13 per cent and 17 per cent of net sales. Although the common figure was 15.4 per cent, there were enough stores with figures around 13 per cent to indicate that the latter figure is the one toward which salaries and wages are tending.

This expense item includes all the salaries and wages paid to officers and employees of the store. In the case of a proprietorship or partnership, it also includes a fair salary for the proprietor or partners. If comparable figures are to be secured for different stores, some of which are operated by corporations with salaried executives and others of which are operated by individual proprietors or by partnerships, the inclusion of this salary in expense obviously is necessary. The amount of the salary that is charged for the proprietor represents the market rate for his services, were he to enter the employ of another firm.

SALARIES AND WAGES IN DEPARTMENT STORES IN 1921—153 FIRMS
Net Sales = 100 Per Cent.

	Common Figure, Per Cent
Administrative and general—Executive	1.8
Other administrative	0.4
Office	1.4
Occupancy	0.7
Publicity	0.4
Buying	2.0
Receiving, marking, and stock-room	0.3
Inside selling—direct	6.6
Managers and assistants	0.8
Indirect selling	0.9
Delivery	0.4
Total salaries and wages	15.7

Advertising

Advertising, as this item is defined in this classification of accounts, includes only the expense for advertising space purchased in newspapers, periodicals, programs, street cars, and on billboards, and also for electrical signs, catalogues, circulars, novelties, and displays. The common figure for advertising was 2.4 per cent of net sales. The highest figure for this item was 8.2 per cent of net sales; nine other firms reported advertising expense over 5 per cent. On the other hand, for a large group of firms, advertising expense was less than 2 per cent, with a concentration around 1.7 per cent standing out prominently.

OPERATING EXPENSES IN DEPARTMENT STORES IN 1921 IN FIVE FEDERAL RESERVE DISTRICTS
Net Sales = 100 Per Cent.

	Boston Per Cent	New York, Per Cent	Cleveland, Per Cent	Chicago Per Cent	San Francisco, Per Cent
Number of Firms	63	26	36	56	31
Salaries and wages	15.0	15.0	15.7	15.3	15.3
Rentals	2.9	2.5	2.2	2.0	3.1
Advertising	2.3	2.2	2.5	2.6	2.0
Taxes	0.5	0.4	0.5	0.7	0.7
Interest	1.8	2.4	2.2	2.5	2.5
Supplies	0.8	0.5	0.8	1.0	0.8
Service purchased	0.6	0.6	0.7	0.8	0.6
Unclassified	1.4	1.4	1.2	1.1	0.9
Travelling	0.4	0.3	0.4	0.4	0.5
Communication	0.2	0.2	0.3	0.2	0.2
Repairs	0.3	0.3	0.1	0.2	0.3
Insurance	0.5	0.4	0.4	0.4	0.4
Depreciation:					
Losses from bad debts	0.1	0.3	0.2	0.3	0.3
Other depreciation	0.4	0.6	0.6	0.5	0.4
Professional services	0.1	0.2	0.1	0.1	0.1
Total expense	27.3	27.3	27.9	28.1	28.2

Comparison of Operating Expenses in 1920 and 1921

The common figures for all the firms reporting on operating expenses in 1921, some of which did not report for the preceding year, are roughly comparable with the common figures for all the firms reporting on operating expenses in 1920.

The changes occurred almost entirely in three items—salaries and wages, rentals, and advertising. For these firms, salaries and wages in 1921 were higher by an amount equal to 1 per cent of net sales; rentals by an amount equal to 0.5 per cent of net sales; and advertising by an amount equal to 0.3 per cent of net sales. These are the items in which probably the chief adjustments will take place in the future as operating expenses are again brought into line with the new conditions occasioned by the period of severe depression through which business generally has been passing.

Gross Margin or Net Profit or Loss

Gross margin is the difference between the net sales and the cost of the merchandise sold. It represents the average mark-up actually realized. It is the amount from which expenses must be met and in ordinary years a net profit obtained. The common figure for gross margin in 1921 in the stores from which reports were received was 28.7 per cent of net sales. The lowest gross margin shown by any store was 7.6 per cent of net sales and the highest

38.5 per cent. Despite this wide divergence between the extremes, the reports generally showed a heavy concentration around the common figure. For the one hundred and forty-nine firms that reported their figures for both years, the common figure for gross margin in 1920 was 27.4 per cent, and in 1921, 29 per cent of net sales.

GROSS MARGIN IN 1921 IN FIVE FEDERAL RESERVE DISTRICTS
Net Sales = 100 Per Cent.

District	Gross Margin Per Cent
Boston	29.3
New York	29.0
Cleveland	28.4
Chicago	27.9
San Francisco	30.5

Net profit is the amount that remains after deducting total expense from gross margin. In any instance where total expense exceeds gross margin, the result is a net loss. Approximately two-fifths of the department stores from which reports were received showed a net loss in 1921.

RATE OF STOCK-TURN IN 1921 IN FIVE FEDERAL RESERVE DISTRICTS

District	Rate of Stock-turn Times
Boston	3.7
New York	3.0
Cleveland	3.5
Chicago	2.7
San Francisco	2.9

The average cost of doing business for the one hundred eleven firms that turned their stock 3.5 times or more in 1921 was 27.1 per cent of net sales. For the ninety-five firms that turned their stock less than 2.5 times the average cost of doing business was 28.5 per cent. The chief variations were in total interest and in salaries and wages. The lower figure for salaries and wages for the firms that had the high rate of stock-turn cannot be attributed directly to the faster stock-turn but rather to management policies.

OPERATING EXPENSES, GROSS MARGIN, AND NET PROFIT OR LOSS IN 1921 ACCORDING TO RATE OF STOCK-TURN
Net Sales = 100 Per Cent.

	Per Cent 2.5 times	Per Cent 2.5—3.4 times	Per Cent and over 3.5 times
Number of Firms	95	94	111
Salaries and wages	16.2	15.4	14.7
Rentals	2.3	2.4	2.5
Advertising	2.2	2.4	2.5
Interest	3.0	2.2	1.8
Total expense	28.5	27.9	27.1
Gross margin	27.7	28.9	29.4
Net profit or loss	Loss 0.8	Prft. 1.0	Prft. 2.3

The expense for interest was directly related to the rate of stock-turn, since obviously the slower the stock was turned the more capital was tied up in merchandise. The firms that turned their stock less than 2.5 times had a common figure for interest of 3 per cent, whereas the common figure for interest for the firms that turned their stock more than 3.5 times was 1.8 per cent of net sales. The heavier advertising expense for the firms that had a high rate of stock-turn indicates one of the means by which these firms speeded up their stock-turn and thereby secured economies in other expenses that far more than offset the additional advertising expense.

The firms that turned their stock less than 2.5 times showed a net loss for the year of 0.8 per cent of net sales. The firms that turned their stock more than 3.5 times had an average net profit of 2.3 per cent of net sales.

An Electrical "House of Service" Where Women Like to Buy

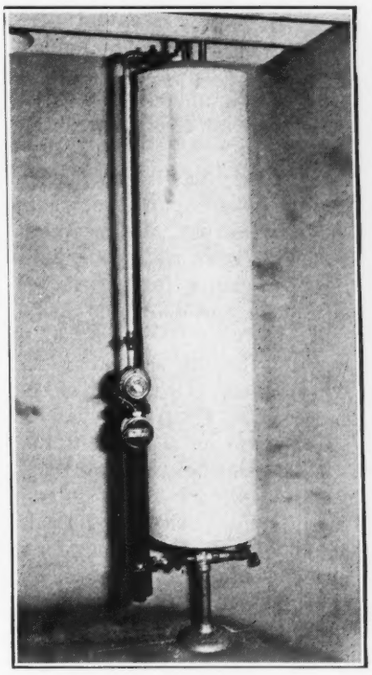
Service to the housewife, both before and after the purchase of an electrical appliance, is the cornerstone of the merchandising policy of the "Electrical House of Service" opened by Sterns, Inc., at 107 Baronne Street, New Orleans. Starting with the theory that the average woman has to be thoroughly taught the actual use of every electrical appliance—from grill to clothes washer—this electrical dealer has made a feature of *demonstrations before* the sale and *servicing after the sale.*

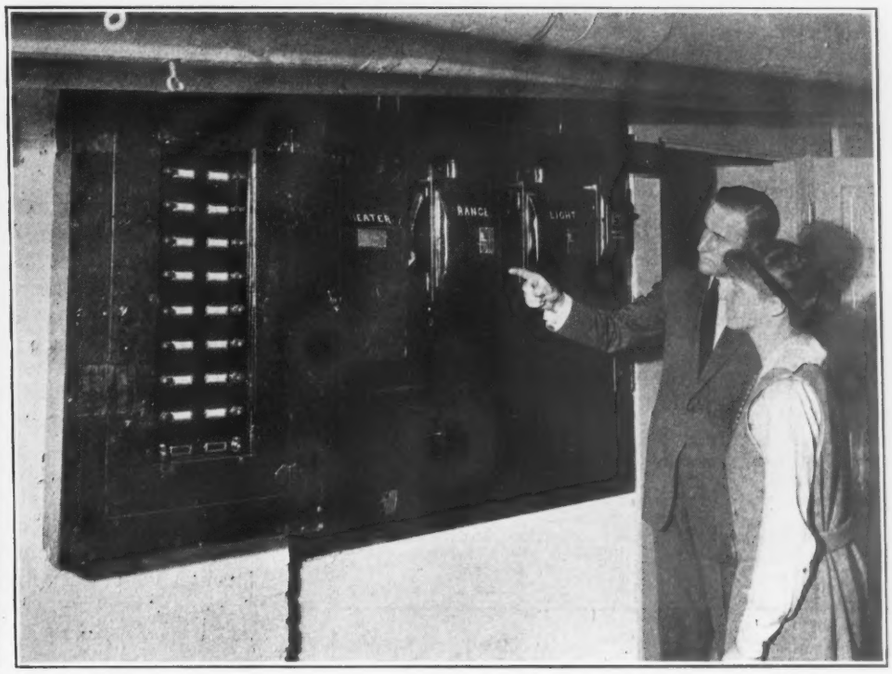
Everything else about the "Electrical House of Service" tends to carry out the idea that it is a woman's shop, and to make it a place where women like to buy. The walls and ceiling are finished in light blue with a darker blue for border. The woodwork is in mahogany. On either side the shelves are enclosed in glass. The stands which are used in displaying irons and small articles are covered with rich blue poplin. The section given over to small boxed goods, such as light bulbs, is enclosed with a series of mirrors. The show-cases are finished in ivory throughout.

In the center of the "house" are a wicker settee, chairs and a table with ice water and, occasionally, writing paper.



A woman's shop, where women like to buy—that is what Sterns, Inc., have made of the "Electrical House of Service" in New Orleans. Thorough demonstrating before a sale, and thorough servicing afterward, are given, and unless complete satisfaction is obtained from the article, it costs the housewife nothing. Everything tends to carry out the idea that it is a woman's shop





Hot water at all times—and plenty of it—is the greatest luxury of the modern home. And not the least important installation of the Wishon residence is its electric water heater. The range and the water heater have come to be looked upon as the central features of the home electrical, around which other equipment is grouped. The right-hand picture shows H. H. Courtright, of the Valley Electrical Supply Company of Fresno, who is responsible for the wiring of the Wishon home, explaining the safety-switch panel to an interested visitor. All 110/220-volt current is handled with safety provisions which make the entire installation absolutely proof against shock and safe for the children of the household as well as for the grown-ups.

Wiring Features of the Wishon Electrical Home

A Glimpse Behind the Scenes of the 263-Outlet Fresno (Cal.), Dwelling Pictured in This Month's "Home Electrical" Section

ONE central-station manager who believes in the electrical home idea so thoroughly that he owns one himself is A. E. Wishon! Mr. Wishon is the general manager of the San Joaquin Light and Power Corporation of Fresno, Cal., and his home contains 263 electrical outlets—and almost every species of electrical appliance known to man. Perhaps because of the support which the central-station company gives to the electrical idea locally by thus showing that it believes in homes electric, Fresno not only has one electrical home, but it has a whole electrical home district, where the general contractor builds nothing but houses which are fully equipped with convenience outlets and modern wiring.

Mr. Wishon's home is pictured in the *Home Electrical* Section sent with this issue of *Electrical Merchandising*, and complete wiring plans are also shown.

His main living room contains sixteen outlets, including the master burglar switch which is found in every room of the house and which controls one light in every part of the house.

Bracket-Fixture Outlets 4½-Ft. High

The electric fixtures are placed considerably lower on the wall than is the usual custom. In spite of the fact that modern "luminaires" are usually of the candle type, with the light higher than the outlet, rather than pendent, as was formerly the case, electrical contractors generally still persist in locating outlets six feet above floor level. Wall brackets in the Wishon home are located about 4 ft. 6 in. from the floor. In cases where the light is required at table height, the bracket is even lower.

In the bedrooms there are switches at each major entrance, convenience outlets near the beds and bureaus, convenience electric heaters, and all such other equipment as go to make a bedroom comfortable. A burglar switch is located where it may be reached from the bed. Wall brackets are placed low on either side of the bureau, giving better light without casting shadows.

The washing machine and electric ironer are conveniently situated on the laundry porch where convenience outlets are at hand for all needs. Attention is also called to the fact that these outlets are situated some fourteen inches above the floor rather than at the floor level, as a more convenient height for the housewife.

There is no question in the Wishon home about "which fuse is which"—each is plainly marked with a number and the directions posted on the door show just what rooms are involved in each circuit.

A switch below the fuse panel governs the lights for the electrically lighted tennis court.

Electrical Merchandising
The Monthly Magazine of the Electrical Trade

believes that:

IT is the duty of every electrical man to *help educate the public to use electricity* and electrical devices that lighten the labor of the home, office, shop and factory, and to organize, from time to time, model "Home Electric" demonstrations, electric shows, home lighting exhibits, commercial lighting exhibits, "electrical weeks" and similar educational influences.

MANUFACTURERS, jobbers, central-stations and dealers should apportion a percentage of their sales appropriations and effort to the development of markets for those appliances that still need pioneering — and build them up to the point where they become staple merchandise.

(For a complete statement of "Electrical Merchandising's" platform for the electrical industry, see February, 1922, pages 52 and 53.)

When You Make Them Want It

THERE are various ways of selling. You can argue a man into buying; you can shame him; you can wheedle him; you can wear him out by persistence; you can sometimes scare him, or trick him. He may buy because he likes you or to get rid of you, or because he's sorry for you, or to square an obligation.

But the best way to sell is to make the buyer *want* what you have for sale.

The automobile industry is big because almost everybody wants a car. The cosmetic industry is huge because every woman wants to be beautiful. The phony stock schemes succeed because every man wants to get rich quick.

It is hard work to sell anything that people do not want, but it is relatively easy to make them want what you have for sale. Try it.

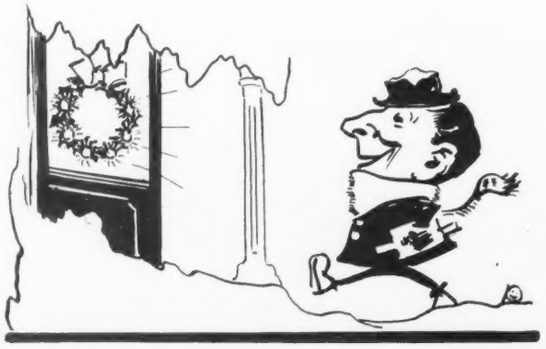
Broadening the Channels of Merchandising in California

MUCH has been said concerning the recent action of the California Electrical Co-operative Campaign and the California State Association of Electrical Contractors and Dealers in offering co-operation with other organizations than those having purely electrical titles. Although the program of the Campaign at the time of present writing is not yet final, it is generally accepted that its work for the coming year will involve the welcoming of department stores, hardware stores or any other line of stores into the fold of the Campaign—on the one provision that they subscribe to its tenets of merchandising. The electrical contractor-dealers, far from resenting this action, themselves called the attention of the industry to the need for such a move.

In this step, the electrical contractor-dealers of the Coast have given a sign of their strength. There has been no denying the situation which has existed ever since the electrical industry began to offer attractions as a merchandising proposition—the sale of electrical appliances has not been confined to the exclusively electrical dealer. The woman who was accustomed to buy irons at the hardware store has to some extent continued to buy them there and the household shopper who buys everything from sewing thread to pianos at her favorite department store has undoubtedly been patronizing that establishment for her electric washing machine.

The fact that the electrical industry has in some sense been denying the existence of these channels of merchandising has been a sign of weakness, somewhat on the order of the timid housewife who talks in a loud voice of the virtues of the town police force just before retiring, the while she locks her door and looks under the bed.

The California group has taken the only sane attitude. Electrical merchandising will flow along whatever channel offers the least resistance. The electrical dealer's position in the field is a strong one on account of his tie-in with the housewife's needs through his contracting work and through the special service which he can give as an expert in his field. Certainly there is no call to anticipate that the amount of merchandising done through his doors will be any the less because he sits in a friendly meeting with his competitors. As a matter of fact, the current of sales has not in the past, nor could it in the future be deflected from the channels which it seeks itself. The contractor-dealer must offer a knowledge of good merchandising principles and his own services in return for success. To be on friendly terms with his competitors in other fields and to ask them to play fair with him on the same just basis of service rendered at a reasonable profit, is just so much gained toward a sound and stable industry, and can only benefit the individual dealer.



Are You Getting Your Neighbors to Decorate Their Holly Wreaths with Christmas-tree Lights This Year?

Electric-Light Bills Now Payable at Electrical Dealers' Stores in Chicago

TO MEMBERS of the Chicago Electrical Contractors' Association, the Commonwealth Edison Company of that city has extended the privilege of collecting its electric-light bills, so that Chicago residence customers may now pay their monthly bills at the nearest electric store, instead of having to come downtown or seek an express office or drug-store pay-station as in the past.

The contractors' association has itself handled the bonding of its members who elect to put these lighting-bill pay stations in their stores. A bond of $1,500 is carried for each such pay-station, the dealer paying the $7.50 annual premium. Forty Chicago electrical dealers are now thus collecting 80,000 bills a month—in this way contributing greatly to the convenience of the public,

and bringing thousands of prospective appliance purchasers into the dealers' stores.

While the utility company permits the electrical dealers to make a charge of five cents for each bill handled (which is the fee allotted to express-company sub-offices for collection service), the electrical dealers have preferred to handle these collections without charge.

The Art of Writing Ads

GOOD ads are written by men who know not only what to say, but how to say it effectively. Amateur advertising is like amateur anything else: it may "get by" among your friends and win the applause of people who look to you for favors or a living, but when you try it on a cold world and expect to cash in on it, that, as Perlmutter says, is "something else again."

From which the reader will gather that we have small patience with those enthusiasts who pretend that the writing of advertising is a "trick" which anyone may learn in an evening. It's not. Advertising is a profession, as arduous—if you happen to be honest—as medicine or the law. It requires as much artistry as playing a harp or painting a picture. It demands as much skill and science as pugilism or tennis.

You remember hearing of Pat's answer when they asked him whether he could play the violin: "I don't know: I never tried." That epitomizes the average man's attitude toward advertising. He feels that he *could* do it if he tried. And he is encouraged in that belief by people who expect to profit directly or indirectly by his effort.

The safe way to advertise is to analyze your proposition and decide what you want to do, just as the way to drive a nail is to get your eye on the nail. Schedule up the points you want to cover, just as you would list the material necessary for a job of wiring. Hire somebody skilled in writing to put these points on paper for you—either a professional advertising man, the local newspaper solicitor, the Society for Electrical Development, or whoever in your judgment can do a neat, workmanlike job of word-mongering.

Put the finished ad in the paper that reaches the most of the best people whether *you* like that paper and its editor or not.

It is just as simple and easy for an electrical contractor to write his own advertising as it is for an advertising man to install his own electric wiring—and no easier. It is also easy to make your own pants—if you happen to be a tailor. But as a general proposition the safe and sane way is to decide what you want done, go to someone skilled in doing it, see that he does the job right, and—pay the bill!

A Home Electric Within a Store

A COLUMBUS, GA., electrical dealer who had witnessed the success of a demonstration Home Electric, has hit upon the idea of building a Home Electric in his own store and holding it as a permanent exhibit for customers and visitors. The house is, of course, nothing more than a bungalow, but it has six rooms, and has as attractive an exterior as interior, so that one steps into it from the store display room with the feeling of entering a real house.

Such a "home electric within a store" has the big advantage of permanence. It enables the dealer to show electrical appliances at work under home conditions at the moment when the visitor, being in the store, is presumably in the buying mood. And, finally, it becomes a far more effective display and demonstration room than any ordinary store interior could be.

Radio "Hitching Post" Draws Crowds to Electrical Store—Jacks Installed for Passers-by to Plug in Own Headsets!





One reason why the P. M. Dreyfuss Company, New York City, has a high batting average in electrical sales is that it uses every means to get crowds in front of its store, and then to keep them there.

"F. J.," of this concern, knows that the stentorian and sometimes raucous voice of the loudspeaker in front of an electrical store no longer does the overt act. But he is aware of the fact that only a few passers-by have worn head 'phones. Therefore, during the World's Series, when the games were broadcasted play by play, he rigged up a radio "hitching post" along the store front, consisting of 24 'phones and invited the public to "listen in." Jacks were also supplied for those who cared to bring their own 'phones.



Ideas for the Man Who Sells



Plans, Schemes and Methods Gathered from Successful Selling Experience to Increase the Sale of Electrical Appliances

The Growing Custom of the "Family Gift"

Electrical merchandise is especially adapted to advertising that is designed to sell the idea of the "gift for the home" at Christmas. But it takes more than a phrase, an illustration, and a price to put over the idea successfully. The great merchant firms always direct attention first to the spirit of such a gift—the merchandise follows naturally.

For instance: "That graceful custom of the 'house gift' is spreading to more families from year to year. In many a home it is the means of bringing in a great deal of beauty and comfort, besides the pleasure it has meant to the givers. So many possibilities present themselves—some practical machine to help in the housework, as an ironer, a dishwasher, a new lamp, etc.

Again:

Christmas for the Home

"We see each year so many more people taking up that graceful custom of a 'house gift'—a gift to the home by all its members or by each individually. This is a thought that will bear repetition, for it benefits each member of the family as well as the giver."

The Useful Gift is Remembered

"Something to take the burden of housework off the shoulders of the home-maker would be welcome—a dishwasher, washing machine, ironer, electric range, or even a new electric iron."

Still others:

"Does your home receive a Christmas gift? Many homes have adopted the custom of a Christmas gift to be given by the members to the home. In some cases a phonograph, in others . . . a washing machine, etc. A 'house gift' of this character is an expression of good will and at the same time a practical benefit to each member of the family as well as to the home as a whole. Choice of a gift for your home can be facilitated by asking the assistance of the Girl in the Cap and Apron in the Household Utilities."

Inviting Attention to the Gift Practical

"When you are choosing a gift for a woman, remember that to most women pride in the home is almost equal to pride in their personal possessions.

"The suggestions are designed for those who realize that in giving something that will make the home more beautiful or cheerful, they are making a gift that will last for many years in the heart of the recipient. Ask the girl in the cap and apron.

"When a gift enriches the home, whether by the service it performs or the beauty it brings, it is a gift long remembered and well appreciated. There is an added pleasure both in giving and receiving the gift which, by the way it fits into the scheme of decoration or into the family's mode of life, shows the thoughtfulness that has divined the need it fills."

Father's Gift to the Family—What Could Win More Favor Than an . . . ?

"Father hasn't time to shop around these days: so why shouldn't he just stop in here, pick out a fine . . . from a stock he can have confidence in and settle all his Christmas-gift worries? Effective selections can be made from the following."

It is—as the advertising says—a thought that will bear repetition.

Unsolicited Shipments of Toasters by Parcel Post for Customers' Trial Service Makes Hit at Fitchburg

A Christmas Gift Suggestion

UNIVERSAL REVERSO ELECTRIC TOASTER

SOMETHING ENTIRELY NEW

We have taken the liberty of sending you this Electric Toaster, and would appreciate your trying it. Its new reversing principle makes it unnecessary to touch the toast when turning it. We feel sure that you will find the Toaster of enough value to mail this card to our office.

Telephone 1550 Fitchburg Gas & Electric Light Co.

Gentlemen:

I desire to retain the Electric Toaster which I received by parcel post. You may add one dollar to my January electric bill, and one dollar each month until the full amount—$8.00—has been paid.

Name .....

Date..... Address.....

Thirty-five per cent of the customers of the Fitchburg (Mass.) Gas & Electric Light Company who were formerly not using electric toasters and who received unsolicited parcel post shipments of these devices before Christmas kept the toasters. F. S. Clifford, sales manager is shipping these devices in lots of fifty to customers known not to be supplied, each toaster carrying a post-card addressed to the company and providing for the retention of the toaster by adding $1 a month to the electric service bill until the full amount, $8, has been paid. In case the customer does not wish to keep the toaster the fact is disclosed either before or after a visit of a sales department employee, who is thus provided with an excellent opportunity to discuss appliances with the customer. Not a single complaint has been received as the customer is put to no expense in the shipment. The scheme is to be utilized by other central stations operated by Charles H. Tenney & Company of Boston, Mass., says Cyrus Barnes general sales manager of the latter organization.

A Window Display Idea

Put a mirror in the window so that it will reflect the faces of passers-by. Beneath the mirror place a sign reading:

A Well-Chosen Christmas Gift Reflects the Giver

A gift used all the year round, means a thoughtful man. Come in and let us demonstrate this washer.

Sell to the Schools and Academies

The announcement that Yale University had recently purchased twenty vacuum cleaners for use in the college buildings should remind every electrical dealer of the opportunities for selling electrical equipment to the schools and academies in his city.

Besides cleaners, these institutions require: washing machines for the laundries; electric ranges and power-driven kitchen apparatus for the kitchen, cafeteria, restaurant, or faculty house; fans for classrooms and other buildings; desk lamps for classrooms, library and offices; electric hand and face driers for lavatories; floor scrubbing machine; and even a motor-driven grass cutter for the grounds.

An order of this kind for a university, high school, private school or academy is never a small order. It is one well worth going after.

Ten Ways to Increase the Average Sale

With the merchant's overhead or selling expense pretty definitely fixed by his running store charges, it is apparent that one way to larger net profits is through increasing the volume of his sales. Ten pertinent suggestions have been compiled by the Merchants Service Division of the National Cash Register Company, Dayton, Ohio, and are as follows:

Hold a School for Salespeople—Classes of this kind, held in the evenings at frequent intervals, stimulate enthusiasm and lead to increased earnings for the salesforce and for the store.

Sell "Associate Items"—Many additional sales can be made by suggesting associated goods, articles that naturally go together.

Pay a Bonus—There is nothing that is more of an incentive to a salesperson to work harder, sell more goods and make more money for himself and his employer than a bonus system.

Give Customers Service—Show them how to care for the goods they buy.

Talk Quality—Salespeople should be encouraged to sell high-grade merchandise to customers. It should always be pointed out that high-grade goods last longer than low-grade and are therefore less expensive.

Place Goods Near Wrapping Counter—Some lines of goods are sold more often by suggestion than others. Place these near the wrapping counter. A surprisingly large number of sales will result.

Sell Bigger Packages—When a customer asks for an article which comes in two or more different-sized packages, she can nearly always be sold the largest size, thus increasing the amount of the sale.

Teach Salespeople the Merits of Goods—Those who do not know the merits of goods cannot be expected to be very enthusiastic over them. Let the traveling salesmen sell the salesforce on their goods.

Push Seasonable Items—There are certain items in every store that are sold only at certain seasons. Displays should be made of them, they should be advertised and salespeople instructed to suggest them to customers.

Use Modern Show Cases—These pay for themselves in a comparatively short time through the increased sales they make. People will buy many goods they see displayed which they had no thought of buying when they came into the store.

Selling Electrical Appliances Between the Holidays

Moderately-priced utility lamps to be given to boys and girls going back to school have been featured by the Commonwealth Edison Electric Shops, Chicago, as a means of enlivening the trade between Christmas and New Year's.

Another idea was putting appliances that needed "only a little nickel polish to make them like new" in the aisle of bargains. These were irons, toasters, grills, percolators, etc., that were left from the holiday selling.

Still another stimulant for this ordinarily dull week was selling the cleaners that had been used for display purposes, at a 25 per cent discount.

When the Shopper Is at Sea

If you offer Gift Certificates for electrical merchandise at Christmas show a picture of a small boat on a lonely ocean. Have a card reading:

If At Sea

As to what to give, get a gift certificate. This means the added pleasure of shopping later on for the recipients—and they will get just what they want.

Curtains Enable One Fixture to Be Shown at a Time



J. M. England has recently installed in his "Electric Shop" at Dallas, Tex., a fixture studio de luxe, as shown in the photograph, the feature of which is a series of heavy velvet curtains concealing the various panels which enclose lighting fixtures. By drawing aside these curtains the fixture salesman can show one fixture at a time, concentrating the attention of the customer on any particular fixture without the distraction of other designs. Mr. England has applied for a patent on the idea.



Marketing New Lines at a Profit



The Dealer Who Makes Money Is the Man Who Capitalizes New Developments of the Electrical Art in Terms of Consumer Sales

Average Family Spends 1.1 Per Cent of Income for Electricity

In an analysis of Census Bureau figures, the University of Ohio finds that in the expenditure of the income of the average family, the amount that is spent for all utility services is about 7 per cent. After exhaustive survey, a table was compiled showing that 43 per cent of the income of the average family is paid out for food, 17 per cent for rent and taxes, 13 per cent for clothing, and 20 per cent for savings, amusements, etc. The figures show that the 7 per cent paid out for utility service is divided as follows: Electricity, 1.10 per cent; gas, 2.45 per cent; telephone, 1 per cent; street car fare, 2.27 per cent.

Merchandising Radio Market News Service to Farmers

One-third of the total population of the United States live on farms. Most of these people are located where they are out of immediate touch with the outside world and the radio receiving set will bring to them the Government weather, crop and market reports. In addition it will bring them entertainment of a high order that will be appreciated, especially during the winter season with its long evenings.

These are the radio advantages the electrical dealer has to sell to the farmer. And it is by selling this service in farm economics and entertainment that receiving sets are being merchandised to farmers with best results.

Every day radio stations of the Government send out reports on livestock, grain, cotton, hay, feed, fruits and vegetable markets. In addition, the Chicago Board of Trade is broadcasting its market quotations at thirty-minute intervals.

With a radio set installed, the farmer can, by taking advantage of the daily market reports, ship his products to the best market. And the weather reports enable him to guard against crop loss by storm and sudden change of temperature.

Such features of radio-service may well be made the basis of a letter to send to every farmer on the mailing list. Invitations should be extended to farmers to visit the store and hear the sets in operation the first time they get into town. In some cases, too, it pays to offer to take a portable set to the farm for demonstration, and it is often possible to make a number of such demonstration calls in one day.

For electric stores located in towns in prosperous farming districts it pays to maintain a radio bulletin board featuring market, weather and crop reports.

Because Women Wanted It— These Kitchen Cabinets Are Now Electrified

King Kitchen Cabinet has at last become electrified.

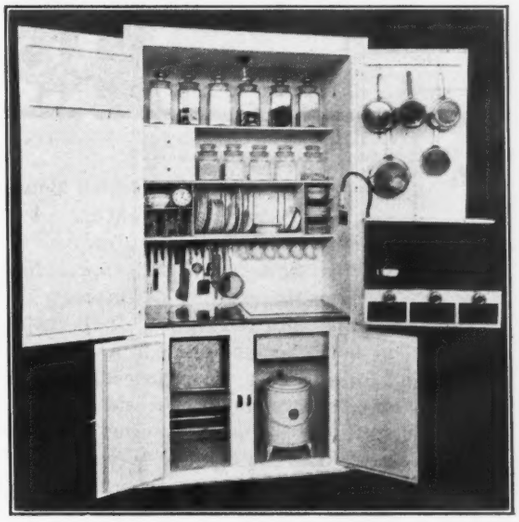
It had to do something of the sort, to maintain its supremacy in the electrical kitchen of the modern housewife.

So it has perforated itself with sundry familiar-appearing outlets, for the convenient connection of electric egg beater, meat grinder, dough mixer or iron. It has crowned itself with a much needed little lamp to shed light directly down on the housewife's work. It has even added to itself a complete electric stove!

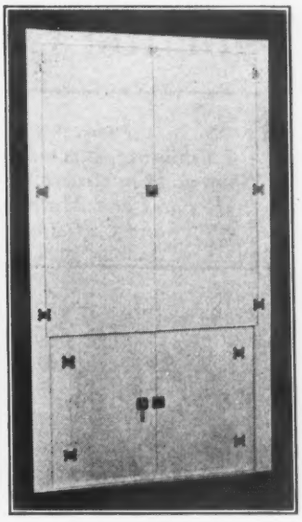
And all that the housewife need do, before she moves the cabinet into its more or less permanent position against the wall, is to "plug the whole



A duplex outlet at the top of this cabinet may serve the lamp and a heating appliance, or two appliances together. The Campbell-Smith-Ritchie Company of Lebanon, Ind., is the maker. This cabinet is made in several models.



A three-burner electric stove, installed on the inside of the door, makes this kitchen cabinet a complete, portable electric kitchenette. Note the lamp in the cabinet roof.



At right is the same cabinet closed. A wire leaves it at the back to connect with the nearest wall outlet. Frank D. Moses of Trenton, N. J., is the maker.

cabinet" into the nearest baseboard outlet.

In short, here is a splendid new electric household help for the electrical dealer to sell, and one that will mean much to the electrical store which is trying to build a place for itself as a *store for women.* The kitchen cabinet has been rapidly acquiring the rank of the indispensables, in the eyes not only of the young bride but of the older housekeeper as well. It is one of the things a woman *must* have, if her kitchen is to be an index of her proficiency as a housekeeper. About it revolves the major part of all kitchen operations—preparing food, cooking, baking, preserving. In the newer cabinets, even more operations center here—making up accounts, refrigerating and ironing. Women themselves have had a large share in developing these cabinets—in suggesting new features and needed improvements. It was a suggestion from several of them that made an Indiana manufacturer put electric outlets in his cabinet.

Following are the names of three manufacturers who are now putting out wired kitchen cabinets, but the list makes no pretense at completeness:

Frank D. Moses, Trenton, N. J.

Campbell-Smith-Ritchie Company, Lebanon, Ind.

Coppes Brothers & Zook, Nappanee, Ind.

The kitchen cabinet developed by the Trenton company has the crowning feature of an electric stove attached to the inside of one of the swinging cabinet doors. On some models, it is a three-burner stove, on others a two-burner. The stove is for surface cooking, but an oven is also provided, to be placed over the burners. On the side of the cabinet, inside, is an extra outlet, and also a push switch controlling a lamp installed in the top of the cabinet. This cabinet is a complete, compact and portable electric kitchenette.

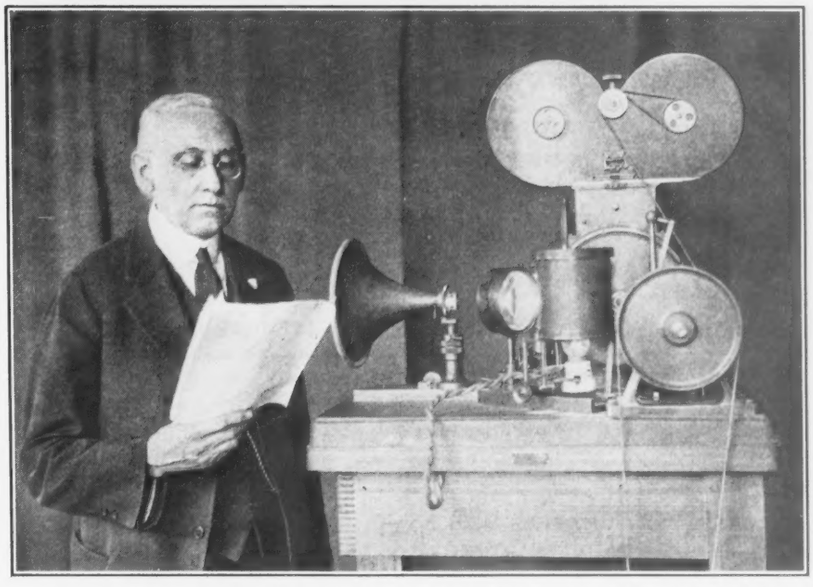
The Campbell-Smith-Ritchie cabinet is wired with a lamp reflector and double receptacle at the top, for the convenient connection of electric iron, egg beater and other kitchen aids. A small ironing board is another feature. This is the cabinet which was designed by 360 women, all of whom took part in a contest to suggest new features that would please the housekeeper.

For the electrical dealer who aims to sell "everything electrical for the home," and to bring the interested housewife to his store, these wired kitchen cabinets open up a field absolutely new and unusually attractive in its merchandising possibilities.

An Electric Wash-Line Float

An entry in a parade that attracted as much attention as a flower-bedecked float was that of a Chicago electrical dealer who ran a clothesline from stem to stern of a delivery truck and hung a doll's washing on it. In addition machines and signs were displayed.

"Talking Movies" and Film Records for Broadcasting Stations Possible with New "Light Phonograph"



An ingenious apparatus for recording sounds upon a photographic film so that the sound may afterward be reproduced in ordinary telephones, loud speakers, etc., has been developed in the general engineering laboratory of the General Electric Company, and so brings immeasurably nearer the day of the practical talking movie.

It also means a boon to radio broadcasting studios. For from a central studio, say in New York City, the world's greatest artists can perform before this machine which produces the film. Copies of this film may then be made and sent to other stations and reproduced with exactly the same clearness as if the artist were himself present.

It makes possible the talking movie, for on a film of the normal width, can be the picture of the voice of the actor, as well as the photographic record of his action, both voice and action absolutely sychronized because they are part of the same film. An arrangement of vacuum tubes reproduces the sound from the photographic record.

C. A. Hoxie is the man credited with the device, called the Pallo-Photo-Phone.



Hints for the Contractor



Ideas on Estimating, Stock Keeping, Shop and Construction Methods, Repairs and Maintenance, and Collections

The Vast Market for Better Store Lighting, as Shown by Surveys in Chicago

BY OLIVER R. HOGUE AND JAMES J. KIRK*

Commonwealth Edison Company, Chicago, Ill.

In a survey of store lighting conditions in Chicago made in 1921, we obtained positive information of the enormous lighting possibilities. In Chicago there are 23,000 retail stores on the ground level. In order that we might get at average conditions, stores of like character in similar locations—in business sections on the North, West and South Sides of the City were decided upon. An equal percentage of stores of each class in each locality were visited. An engineer was assigned to each section. The data was obtained by the use of a foot-candle meter, by observation and a questionnaire submitted to the owner of the store. It was necessary to visit over 1,000 establishments before satisfactory data was obtained.

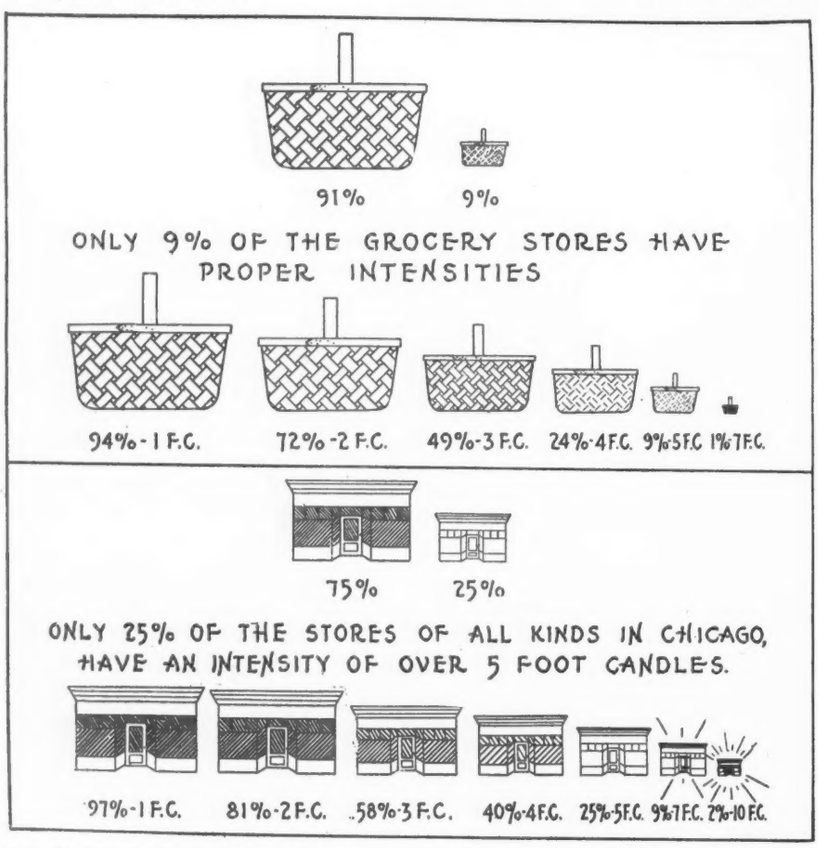
The following classifications comprise the kind of stores that were visited:

Dry Goods	Restaurants
Candies	Groceries
Bakeries	Furniture
Tailors	Drugs
Meat Markets	Cigars

The same percentage of stores of a given classification of the total number of stores of that classification were visited. Of the 23,000 retail stores in Chicago, 25 per cent are grocery stores of which only 9 per cent have proper lighting. Forgetting the lighting engineer's view of this inadequacy, and approaching it from the customer's interest, is 5 foot-candles enough? It certainly is not even enough for an outlying grocery store that closes at 6 p.m. five nights in the week. On the sixth, Saturday night, the light will draw new customers. We don't even need to mention the stormy winter nights, when it becomes dark about 5 p.m. Then, why do we find so many grocery stores with less than 5 foot-candles? It is evident that the real truth has not yet been presented to the grocery merchant in such a way, as to cause him to think, and reason along the right lines.

Although drug stores are better lighted than any of the other classifications, yet but 30 per cent of them have an intensity over 5 foot-candles. The druggist has a better idea of what good lighting means than the average store owners. The drug store is a long hour user of electricity, and for that reason has a better opportunity to judge the results secured by improving his lighting.

*Abstracted from a paper read before the Great Lakes Section, N. E. L. A., French Lick Springs, Ind., Sept. 29.

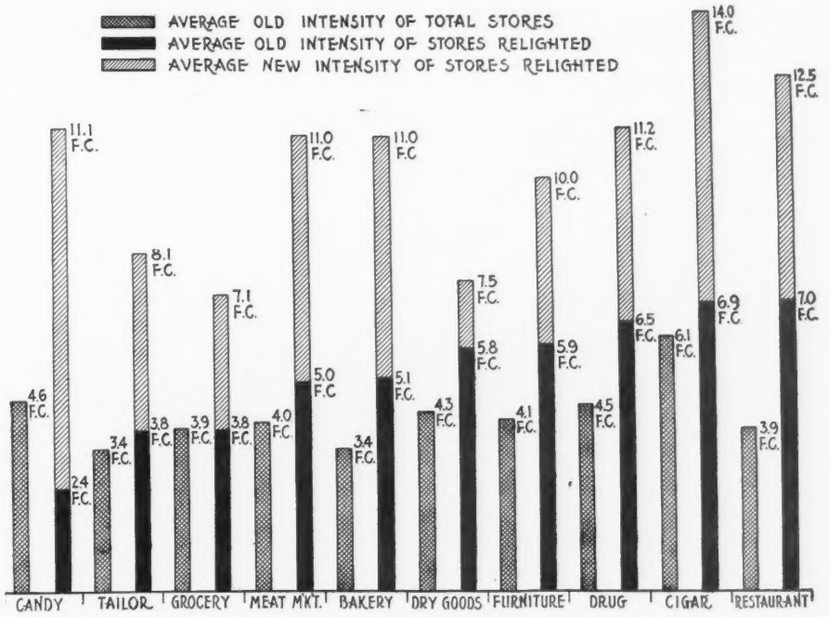


The Chicago survey revealed that less than one-tenth of the city's grocery stores had proper intensities. Also that only a quarter of the stores of all kinds had intensities above 5 ft.-candles. Similar conditions undoubtedly exist in most towns and cities.

Only One Store in Fifty Has 10-Ft. Candles

The survey shows that only 25 per cent of the retail stores of Chicago have an intensity of 5 foot-candles or better, and only 2 per cent have intensities of 10 foot-candles. It is indeed regrettable to think that only 2 per cent of the retail stores may be classed as progressive, and meet present day standards of good lighting. Just think what this means—seven out of ten stores are prospects for better lighting. (Here we do not mean that a prospect is one that is sold on the value of better lighting but, rather, a prospect is considered as one who has poor light to the extent that his customers, himself, and all with whom he comes in contact would be benefited by better lighting.) Our enormous field lies with the six out of seven prospects who require patience and tactful selling.

The 1921 survey showed that the stores had an average of 8.4 fixtures.



The lighting salesman was told that we expected him to work for installations of at least 10 foot-candles. How well he succeeded is evident from a study of the accompanying diagram. Of the ten classifications surveyed, all but three equalled or exceeded 10 foot-candles, with a minimum of 7.1 foot-candles, and a maximum of 14 foot-candles, and an average of 10.1 foot-candles.

It is indeed a very conservative estimate to assume that one-half of the present equipment is in reasonably good condition. Granting this, 108,560 bare lamps, drop cords, and obsolete fixtures should be replaced by modern fixtures.

Nearly one-half of all the stores, 41 per cent to be exact, are using the latest type high intensity C lamps, while few of them have proper fixtures.

Many good lighting installations are rendered inadequate and inefficient through the accumulation of dirt. Few merchants realize that from 35 to 40 per cent of the illumination is absorbed by the accumulation of dust on the fixtures. Dirt and dust collect in a comparatively short time. To meet this situation it is necessary to maintain a cleaning service, as the average business man is too busy thinking of his own line of work, that he usually neglects the lighting system.

Fixtures should be taken care of at least every 30 days—shorter periods are more desirable especially in certain locations.

The Second Survey

Following the first survey an intensive store lighting campaign was conducted, and in the early part of 1922 a new survey was made of the stores that were included in the former survey. As the former survey gave us a very definite check on the re-survey, it was comparatively easy to ascertain just what had been accomplished by our store lighting campaign.

The lighting salesman was told that we expected him to work for installations of at least 10 foot-candles. How well he succeeded is evident from a study of the accompanying diagram. Of the ten classifications surveyed, all but three equalled or exceeded 10 foot-candles, with a minimum of 7.1 foot-candles, and a maximum of 14 foot-candles, and an average of 10.1 foot-candles.

This latter survey also revealed a startling thing, viz., that it was not the poorly lighted store that was relighted, but rather the store which already had intensities well above the average. In other words, the merchant who had been using good lighting, had a real appreciation of its value to his business and was only too willing to better his installation.

Collecting a Bill With Appointment Calls

Occasionally, you will find a customer who asks for an extension at the end of thirty days. For an illustration: This customer fails to pay and his debt—$200—runs until it is ninety days or more old. Do not allow this to happen. Collect it first. You know he quits trading with you because he owes you.

Straighten any dispute. If he then refuses to pay you because he hasn't it, or other wise, ask these questions: *"Mr. Smith, when can I expect payment, or a portion of this bill?"*

He will answer, *"Soon as I can."*

Ask again: *"About when?"*

He'll say: *"Ten days or two weeks."*

Ask the day.

He'll say: *"Wednesday"* or may be *"Monday."*

Glance at the calendar: *"Why, Mr. Smith, that's Monday the thirteenth."* Make a notation at the bottom of said bill and then ask Mr. Smith what hour would suit him best.

He'll say: *"Ten o'clock."*

Make that notation, allowing him to see you do it. *Now*—it's up to you.

By all means, be there Monday the thirteenth at 10 o'clock. When you walk in the door, he will remember at once. He may put you off again, saying that "he couldn't get the money."

Then say, "Mr. Smith, can't you let me have $100 today? I need it."

Before he answers say, "If you can't do that, let me have $50."

Nine chances to one he will give you the $50. He may cut in half and give you $25.

Use Persistence—But Always with a Friendly Smile!

However, if he fails to give you any, say to him: "Can't you possibly give me at least $5 or $10?"

It will hurt his pride, he may pretend to get mad, but that's where you want him. Then after he pays you *any amount*, no matter how small, thank him and ask *"when can I come back,"* and he'll say, "Oh, about Monday week."

You'll then say: "Monday is the 27th. I'll be here at 10 o'clock," and *you be there.*

Use the same tactics and about the third trip, maybe the fourth, he'll get mad and "take the bull by the horns" and pay up in full.

He respects you, yet at the same time he won't trade with you for about thirty or sixty days, but he'll come back, buy more and pay on the first and become one of your best customers. *Be sure to bear in mind that diplomatic handling* with a smile will get your money.

If perchance a clerk is collecting for you, the first time the customer fails to pay, find out why and when the time comes to present his bill—*and now's the time*—go yourself.



The Appliance Saleswoman



An "Idea Exchange" for the Women Who Sell Labor-Saving Appliances for the Home

Staging a Range Demonstration

BY FRANK J. ALLEN

Westinghouse Electric & Manufacturing Company

I have found, in giving a demonstration lecture on the automatic electric range, that I must check up with the greatest care everything pertaining to it. I personally select the cut of meat and the vegetables to be used. Needless to say, the best foods are always obtained. It would seem that the preparation of the foods would not require a second thought, but you have only to stage a few lectures to see how few people can peel potatoes and onions, or scrape carrots, well enough for a demonstration.

Then there is the arrangement and decoration of the hall. Most lectures are held in town halls or other public meeting places, some of which are not very attractive. The scarred walls and ugly features will be greatly softened if you will draw the shades and use the electric lights. Another advantage from this, especially during the short winter days, is that the audience is not so apt to notice that the afternoon is passing, and worry about returning home and preparing dinner. And as for potted plants, it is surprising how twelve spruce trees and a little crepe paper will transform an unattractive hall. If the lecture is under the auspices of a club, always try to use the club colors in your decorations.

Tables used in the demonstration should always be covered with white. Many five-and-ten-cent stores have paper tablecloths designed so that they look like linen from a distance. Foods should be passed around in the utensils before and after cooking. The use of paper plates in serving the cooked food is quite satisfactory, and does away with the necessity of washing them.

Lights Sell Meals to Women

"I can't understand why my evening meal business is so much better in the summer than in the winter" said the proprietor of a neighborhood restaurant to an advertising man.

After a few evenings the advertising man told him: "Most of your evening business comes from business women who room in the neighborhood. In the summer it is still light at dinner-time. But in winter your corner is exceptionally dark and lonely looking because of the big school to the north. Your business must come from the south and west. Tomorrow night you walk two blocks in each direction and look toward your restaurant. See whether a woman would want to walk that way. Your dark corner unconsciously suggests a gloomy meal which is just what such women want to avoid."

How About Starting a Lamp Shade Class in Your Store?

Lamp shade classes are by no means a new method of interesting women in good illumination in the home, but the plan followed by one large fixture dealer has been so successful that it is well worth the attention of other dealers contemplating the formation of similar classes. This dealer has an average of fifty women attending these classes, all intensely interested in the work and turning out more than 100 lamp shades a month.

His method is simply to hire a competent woman instructor, let her organize the classes, and provide space for the meetings in his own display rooms. The classes are

"Have Women Wait on Women" Says Ohio Dealer



Some rash literary man once claimed that he "understood" women. Perhaps he did, but Charles M. Beltzhoover, president of the Beltzhoover Electric Company of Cincinnati, has his doubts—at least in respect to women patrons of an electrical shop. And he bases this theory on experience for he says: "Eighty-five per cent of the sales in our store, from a close tabulation, are made by women, and one woman can speak the other woman's language to better effect than can a man. We have always felt that a basis of understanding was sooner reached between two women over an article used by women in the home than would be the case if the clerks were men." The above photograph shows Miss Anna C. Kotz (left) and Miss Laura Benz, two of the four young women members of the company's sales staff. Miss Kotz who is secretary of the Beltzhoover Company and who has complete charge of the store at Fourth and Plum Streets, says that although household appliances are their specialty, the girls can't be "stumped" on a little technical talk. They can explain the correct method of installing devices or can help select a floor lamp to match a color scheme.

divided into groups, each group meeting once, twice or three times a week, as the case may be, but each group receiving the same course of eight lessons or lectures. The schedule of subjects covered each day by the instructor is flexible, but in general is as follows:

Lesson 1—Lamp shades and how to buy them; utility and harmony with room considered.

Lesson 2—The lining of shades; color and method of attaching.

Lesson 3—Color harmony—talk illustrated by displaying materials over lights.

Lesson 4—The adjustment of frames to various fixtures.

Lesson 5—Special shades for living rooms, dining rooms, bedrooms, etc.

sson **6—Covers for** the shades—sheer, stretched, accordion pleated or flat pleated.

Lesson 7—**Trimmings—fringe**, braid, flowers, tassels, etc.

Lesson 8—**Lamps** for various other rooms of the house.

Each Design Receives Special Study

"I consult with each woman, as far as possible, about the individual needs of her home," says the instructor, in discussing her work. "More than that, I arrange to shop with each one, to buy the necessary materials. The purpose for which the lamp must be used, the architectural plan and general color scheme of the room and furniture, all come in for consideration, in selecting harmonious fabrics for the shades.

"These classes, I believe, are one of the best methods of familiarizing women with the principles of good illumination in the home and creating a real demand for the best in 'lighting furniture.' Lamp shade making will interest any woman who has a home. It fascinates them because it is an art. Women like to make pretty things, especially if it is something that they use in their homes. It is the joy of seeing something beautiful grow under their fingers that is the attraction, and a woman will work hours over a lamp shade just as she will work hours over embroidery."

Each member must be supplied, at the second lesson, with scissors, thimble, tape and an apron. While the women may work on their shades in the store, they are encouraged to take the shades home to work upon, for not only will this interest others in the classes and the store, but it will also make it possible for each member to make five or six shades during the course.

"Better Homes" Mean Labor-Saving Home Kitchens and Laundries

CURIOUSLY, with all our American ingenuity and resourcefulness, we have overlooked the laundry and the kitchen, and thrown the bulk of our efforts in directions other than those designed to make better homes by adding to the facilities of our very habitations. If, in other words, the family is the unit of modern civilization the home, its shelter and gathering-point, should, it would seem, warrant in its design and furnishing quite as large a share of attention as the power plant or the factory.

Herbert Hoover.

Triple-Plug Orders Outrun Double Plugs

"A fact not generally realized by the electrical dealer," says James S. Cuming, president of the Ajax Electric Specialty Company of St. Louis, "is that while the ordinary demand for double-socket plugs heretofore has been ten to one in favor of the double against the triple, our demand from direct advertising has shown four to one in favor of the triple plug."

A "Testing Home" for Electrical Appliances

In Cooperstown, New York, in a certain house that seems much like other houses except that it is a trifle more homelike than most, there are going on every day and every week the same household activities that may be found in a million other homes, yet many electrical dealers are in some degree affected by its activities. For from it goes monthly the word that decides for thousands of average, everyday housewives whether they shall or shall not buy this or that appliance.

It is the Testing Home and Laboratory of *Today's Housewife*.

While it is equipped with all the laboratory facilities necessary for testing, the appliances are nevertheless tried out under real home conditions, the tests being made part of the regular family life and household routine. To the house come daily scores of household appliances—not all electrical, but including everything from electric range to curling iron—for examination and testing.





In this kitchen of the Testing Home of *Today's Housewife* at Cooperstown, N. Y., scores of electrical appliances are tested out weekly and reports made to the readers of the magazine. "If we can do it, you can," is the slogan, and if the Testing House approves of a dishwasher or a range, it's a safe bet that thousands of other housewives will, too.

The Testing House is a real home, the tests of electrical appliances being made a part of the regular family life and household routine. Here is the dining room, where toaster, percolator and table stove are in daily use.



Store Equipment and Methods



Timely Suggestions on How to Plan and Equip Your Store— Systems Which Are Used in Successful Merchandising

Little Signs Catch the Eye in a Full Window

Window display experts can be found to extol the virtues of all sorts of layouts, from the solo effect that shows a single appliance draped about with purple velvet to the ingenious attempts to get one piece of everything the store sells in the window at once. Regardless of whether you belong to the solo school or the everything-but-the-cash-register group, there will come a time when you'll put on a display that has a number of small units in it.

When that happens you can take a valuable tip from a suburban stationery store that fills its window plumb full of typewriter paper, ribbons, erasers and bottles of ink, paste and type cleanser. People stop to look things over in this window. Perhaps one reason is that prices are plainly marked on everything, on little cards that catch the eye.

As people glance from pad to bottle, and from bottle to pen tray they strike a neat little printed card that says, modestly and cordially

Keep on Looking!
You'll Find Something
You Need

And next to a pile of assorted pads of scratch paper, each with the price attached, was another little card that told them:

If There Are Better Prices on
These Pads,
We Haven't Seen Them

Beans in the Window

They are now raising beans by the aid of electricity, according to a New York newspaper, which says: "A seed store on Barclay Street is making the experiment of growing beans by electricity and it has attracted considerable attention from passing commuters, who are more or less amateur gardeners.

"In the window of the store is a cold frame, probably 3 ft. square. When it was placed in position a short time ago it was the cause of a bit of speculation, especially the blue electric light burning in front of the frame. A thermometer placed in the box later revealed the secret. It was apparent that seeds had been planted, for the cold frame contained moistened soil.

"Presently the earth showed signs of cracking and soon the green stems and small leaves poked their way through. They are now about an inch high and growing daily.

"The temperature is kept at about 80 deg. and the light burns day and night."

Putting the Decorative Touch Into the Show Window



Who says that a central-station office serving a seaside resort cannot make up as attractive a window as any city dealer? Look at this photograph, Mr. Reader, which Arthur Tytus, appliance manager of the Exeter (N. H.) & Hampton Electric Company, has just sent us. Here is a view of his store window down at Hampton Beach, showing a lot of mighty handy little socket devices for use in summer cottages and including a particularly attractive display of portable table lamps. And by the way, this is one of those Tenney companies of which one Cyrus Barnes of Boston is general sales manager, this "Cy" being very much in sympathy with movements to electrify the home both winter and summer! Their windows are worth watching.

Profit 8 Per Cent, Turnover 3,—Averages for Phonograph Sales

Net profits in the sale of phonographs average 8.32 per cent. The average stock turn is 3.02. The average volume of phonograph business for stores showing the foregoing figures is $87,229.

This is what has been shown by an investigation covering the business of 1919 by the National Retail Dry Goods Association, and the stores whose experience was listed were, of course, for the most part department stores.

The highest mark-up recorded out of reports from twenty-eight stores was 52.7 per cent. The average was 40 per cent and the lowest was 34.2 per cent.

The highest net profits reported from among twenty-seven stores was 22.3 per cent, the average was 8.32 per cent and the lowest was 3 per cent, though three of these twenty-seven stores reported net losses of 3.2 per cent, 6.9 per cent and 7.6 per cent. These figures, however, do not represent segregated profits on phonographs alone.

Of four stores which reported the segregated profits the highest net shown was 17.14 per cent, the lowest 3 per cent and the average 8.75 per

cent. One store reported a loss of 5 per cent.

Of four stores reporting segregated profits on records alone one showed 7 per cent net, one had 3 per cent, one showed a loss of 1.53 per cent and one a loss of 3 per cent.

Stock turn figures showed:

	High	Common	Low
General	6	3.02	1
Phonographs	5.8	3.56	1
Records	4.3	2.6	1

In figuring stock turn three systems were used—average stock at retail into yearly sales, average inventory at retail into yearly sales and average stock at cost into yearly sales at cost.

Of twenty-three stores the highest sales volume reported was $354,486, the average $87,229 and the lowest $14,138.

A "Super Cash Register" that Gets a Receipt Before Unlocking Cash Drawer

The cost of selling at retail has not yet dropped to a level corresponding with present prices. Electrical dealers and contractors are facing the necessity of increasing their sales, thus reducing the percentage of overhead, or of paring expenses so that the actual outlay for overhead does not amount to so much. Under present conditions, with the high labor costs, and high rents, there is little chance of reducing overhead charges without injuring the quality of the service offered. Many prosperous merchants, however, have found it possible to greatly increase sales by up-to-date and original merchandising schemes. But there is yet another way by which the electrical dealer's net profits can be increased. The little unnoticed leaks which occur day after day in the average shop can be eliminated.

Although salespeople are usually honest, they are very often careless. And among so many people there are bound to be some undesirables who are not above taking advantage of their employers when an opportunity presents itself.

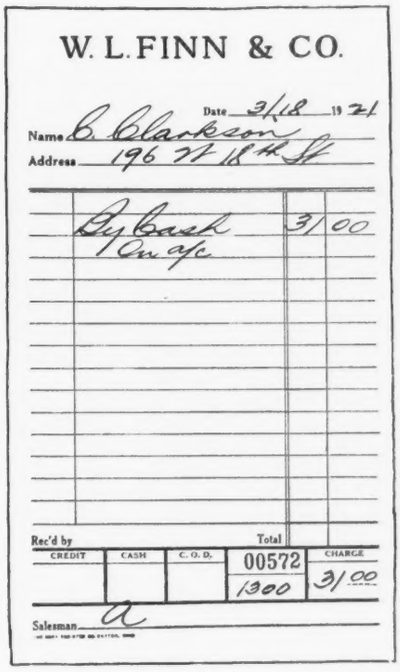
In the average electrical shop, where an ordinary cash register is used, it is not always possible to place the blame for a shortage of money or merchandise upon the shoulders of the employee who made the mistake (usually through carelessness or negligence and, in rare instances, through downright dishonesty). In most shops, the goods are wrapped up and handed to the customer. The sale is recorded upon the cash register and the money is placed in the cash box. The customer is given her change and perhaps a duplicate slip showing the amount of the purchase. The slips are the same no matter which clerk makes the sale. The cashier, being human, cannot remember at the end of the day just what merchandise was sold by each clerk.

The Egry company, Dayton, Ohio, has perfected a new automatic cash register. This machine insures absolute accuracy. It protects the proprietor, the customer, and the salesperson.

Sales Slip in Triplicate Must Be Filled Out First

Before any cash can be obtained from the cash drawer, which is controlled by this machine, a sales slip in triplicate must be filled in by the clerk who operates the machine. This slip is made out in the clerk's own handwriting so that it is easy to keep track of the transactions made by each individual clerk.

Each slip contains all details of each transaction. It shows what kind of merchandise has been sold, the quantity, the selling price, and the name and address of the purchaser. It also shows whether the transaction was for cash, credit, C. O. D., on approval, or exchange.


W. L. FINN & CO.

Date 3/18 19 21

Name C. Clarkson

Address 196 N 18th St

By Cash 3/00
On a/c

Rec'd by | CREDIT | CASH | C. O. D. | Total 00572 | CHARGE 3/00
1300

Salesman a

This shows that Clerk A received $31 on account from C. Clarkson — tells amount received, by whom, from whom, and for what purpose—a complete check. This ship had to be filled out before the cash drawer could be opened. Every Egry auditor is also fitted with a counter, showing the number of times cash drawer is opened. This gives a second check on cash drawer.

The original slip is given to the customer. The first copy is used for crediting merchandise records, balancing cash, and for checking charge transactions. The second copy is held within the register, under lock and key, for the use of the proprietor himself. With this copy at hand, the electrical dealer can discover any mistakes which have been made and can know at once who is responsible for them. He can also keep tabs on the selling ability of each salesperson in his shop.

The slip gives an accurate record of merchandise sold and provides all the information necessary for a perpetual inventory. Turnovers can be estimated, shortages in stock can be discovered, and the trend of customer demand can be ascertained.

The machine comes in many different models and sizes. It rests upon a cabinet containing any number of drawers desired. A table can be purchased upon which to place the machine so that it will not take up valuable counter space.

A Drawer for Each Sales Person

A multiple drawer cabinet is especially valuable because each drawer can be used exclusively by a single salesperson. The mechanism can be so adjusted that no one can open a certain drawer except the employee to whom it has been assigned. In this way, each salesperson can be held strictly to account for the amount of cash in his drawer at the end of the day. If there are more drawers in a cabinet than are necessary to hold the cash, the extra drawers may be used for the files and for the books of record.

Each drawer is equipped with an individual lock and with a counting mechanism which shows how many times it has been opened, thus providing a further check on the operator.

Such machines as these greatly increase the chances for adequate profits in stores where they are used. No electrical merchant is interested in paper profits. He wants reliable proof that his profits are real. If he uses some such system as the one described above, he will find that his actual profits at the end of the year are just as great as his estimated profits.

Getting the Right Soap Sold at the Start for Use in Electric Washing Machines

From a Recent Survey Made by "Electrical Merchandising" for the Electric Washing Machine Trade and Soap Manufacturers

THE question of the proper soap or cleanser for use in electric washing machines is an important one. In many cases it has been found that a change of soap makes all the difference between a dissatisfied and a satisfied user. With many different types and brands of soaps, powders and compounds on the market for use in electric washing machines, the question is asked "Which of them is the best?"

Electrical Merchandising felt that an investigation to help answer this question might prove of interest to soap and cleanser manufacturers. Accordingly, manufacturers and a few of the largest distributors of both electric clothes and dish washing machines were approached and asked what soap or cleanser they had found to be the best and what recommendations they made to dealers and purchasers of their products.

The results of this investigation are given in the tables following and are in answer to the question, **"What agent have you found best and what do you recommend?"** The first table is devoted to clothes washers and the second table to dish washers.

Soap Chips and Flakes Are Recommended

Fifteen manufacturers recommend soap chips or flakes bought in packages. The advantages they point out for this method of washing is that the flakes or chips dissolve quickly, that there is none of the trouble which accompanies the chipping up or jellying bar soap, and that soap flakes or chips are usually made of a good neutral white soap.

Nine companies prefer or recommend bar soap chipped by the housewife or washing machine user. They point out that by chipping her own soap it is not too dry as is often the case, it is said, when soap flakes or chips bought in boxes have been standing too long on the dealers' shelves. Bar soap, while it is less expensive than soap chips bought in packages, also means more trouble to the housewife when chipped. As to the disadvantages of this method it is claimed that the pieces of soap chipped by the housewife are usually large and so do not dissolve quickly.

The method of chipping and jellying bar soap is favored by nine companies who call attention to the quickness and thoroughness with which jellied soap dissolves. There is no danger, they say, of "hunks" of soap lodging in garments as is sometimes the case when chipped soap is employed. The disadvantage of this method is the trouble and time it takes.

Washing compounds used in conjunction with soaps are favored by five companies and soap powders by one.

It is worth while noting that although only two companies recommend powdered or granulated soap, one of them is the largest manufacturer of electric clothes washers in the world and the other ranks with the first ten. Both these companies believe so firmly in powdered or granulated soap that they are marketing their own brands.

Our observations lead us to believe that soap flakes or chips bought in packages and powdered or granulated soap will find increasing favor with users of electric clothes washing machines either alone or in conjunction with washing compounds.

What particular brands of these flakes or chips, powdered or granulated soap and washing compounds will be the real sellers depends upon merchandising, which includes the important item of distribution. Washing agents, to be bought, must first be stocked and must be known by the user of washing machines.

There are two classes of stores through which soap flakes or chips, powdered or granulated soap and washing compounds will be bought. Grocery, department and housefurnishing stores are one group and electrical contractor-dealers, electrical specialty shops and electric light and power companies are the other group.

CLEANING AGENTS RECOMMENDED BY CLOTHES WASHING MACHINES MANUFACTURERS

Washing agent	How many prefer it.
Soap flakes or chips bought in boxes	15
Bar soap chipped by the housewife	9
Bar soap chipped and jellied by the housewife	9
Washing compounds used in conjunction with soaps	5
Powdered or granulated soaps	2
Soap powders	1
"We make no recommendations"	5

CLEANING AGENTS RECOMMENDED BY DISH WASHERS MANUFACTURERS

Agent	How many prefer it.
Washing compounds	5
Powdered soap	1
Bar soap chipped by the user.	None

The first mentioned class of stores undoubtedly must be familiarized with a certain brand of soap flakes, etc., since women are accustomed to buying soap there.

But even more important is it that the electrical retailer be "sold" on a particular brand of soap flakes, etc. In the first place, he sells the electric washing machine (either clothes- or dish-) in which the soap or cleanser is to be used. He is the expert on electric washing machines and it is logical that women when they are purchasing washing machines should ask him what form of soap or cleanser should be used in the washers and where it can be obtained. The electrical retailer should be able to recommend the best soap or cleanser and to say that he stocks and sells it. In the course of our investigation many manufacturers of electric washing machines said they were unable to make recommendations as to a soap or cleanser because the water differed so greatly in different localities. To quote one company, "The kind of soap flakes or chips, powders or compounds that can best be used in a clothes washer depends largely on the kind of water that is available." Another large manufacturer of washing machines said, "There is no soap, soap powder or combination of agents that can be recommended for use in all sections of the country. For instance, a jelly soap would generally work very well in localities where lake water is used, but would not be satisfactory in sections where the water is soft."

Washing Machines Put Even Colored Mammy's Job on a Business Basis

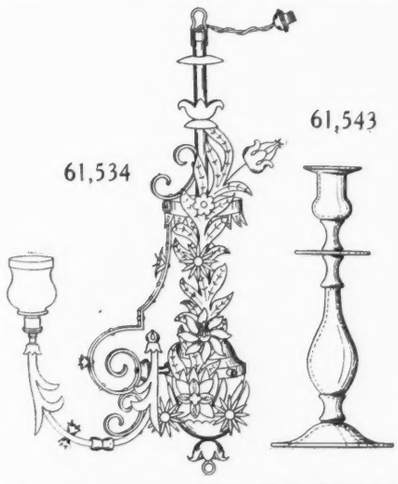


Aunt Fannie Robinson of Waco, Texas, probably beats all other washerwomen in her territory for proficiency in her art. She averages twenty family washings a week. That's because she uses an electric clothes washer. The average laundress can handle only one family washing a day. How about the washerwomen in your town? Tell them how Aunt Fannie paid for her machine in a few weeks by her increased income—to say nothing of the back-breaking labor saved.

Record of Lighting Fixture Patents

Issued from Oct. 3 to Oct. 31, 1922

Compiled by NORMAN MACBETH
Consulting Illuminating Engineer, New York City



Design Patents

The following are ALL the design patents pertaining to lighting materials, issued by the U. S. Patent Office, from Oct. 3, 1922 to Oct. 31, 1922, inclusive.

61,534. Light Fixture—Joseph Warmuth, Minneapolis, Minn. Filed Mar. 31, 1922. Issued Oct. 3, 1922. Term fourteen years.

61,543. Candlestick—Wm. H. Magee, Wheeling W. Va. Filed Jan. 30, 1922. Issued Oct. 17, 1922. Term three and one-half years.

Mechanical Patents

1,430,827. Photographer's Lamp. Hartmann John Mockel, St. Louis, Mo. Filed Sept. 6, 1921. Issued Oct. 3, 1922.

1,430,854. Shade Holder. Thos. W. Rolph, Sebring, Ohio. Assignor to General Electric Company. Filed Mar. 12, 1920. Issued Oct. 3, 1922.

1,430,860. Electric Lamp. Robert Swimmer, New York. Filed Nov. 24, 1919. Issued Oct. 3, 1922.

1,430,941. Holder for Light-Diffusing Bowls. Herbert E. Cave, Indianapolis, Ind. Filed Dec. 7, 1920. Issued Oct. 3, 1922.

1,431,005. Lamp Shade. Kuma Kawaguchi, New York. Filed Sept. 20, 1920. Issued Oct. 3, 1922.

1,431,325. Electric Fixture. John F. Pederson, Racine, Wis. Assignor of one-half to Andrew Astrup, Racine, Wis. Filed Aug. 23, 1920. Issued Oct. 10, 1922.

1,431,450. Coupling for Electric-Light Fixtures. Walter J. Gorman, Louis Frankel and Alfred A. Wohlgezon, Chicago, Ill. Filed Sept. 8, 1920. Issued Oct. 10, 1922.

1,431,588. Lighting Fixture. Max Klein, Philadelphia, Pa. Filed July 25, 1919. Issued Oct. 10, 1922.

1,431,670. Parlor Floor Lamp. John Klem, Cleveland, Ohio. Filed Aug. 24, 1921. Issued Oct. 10, 1922.

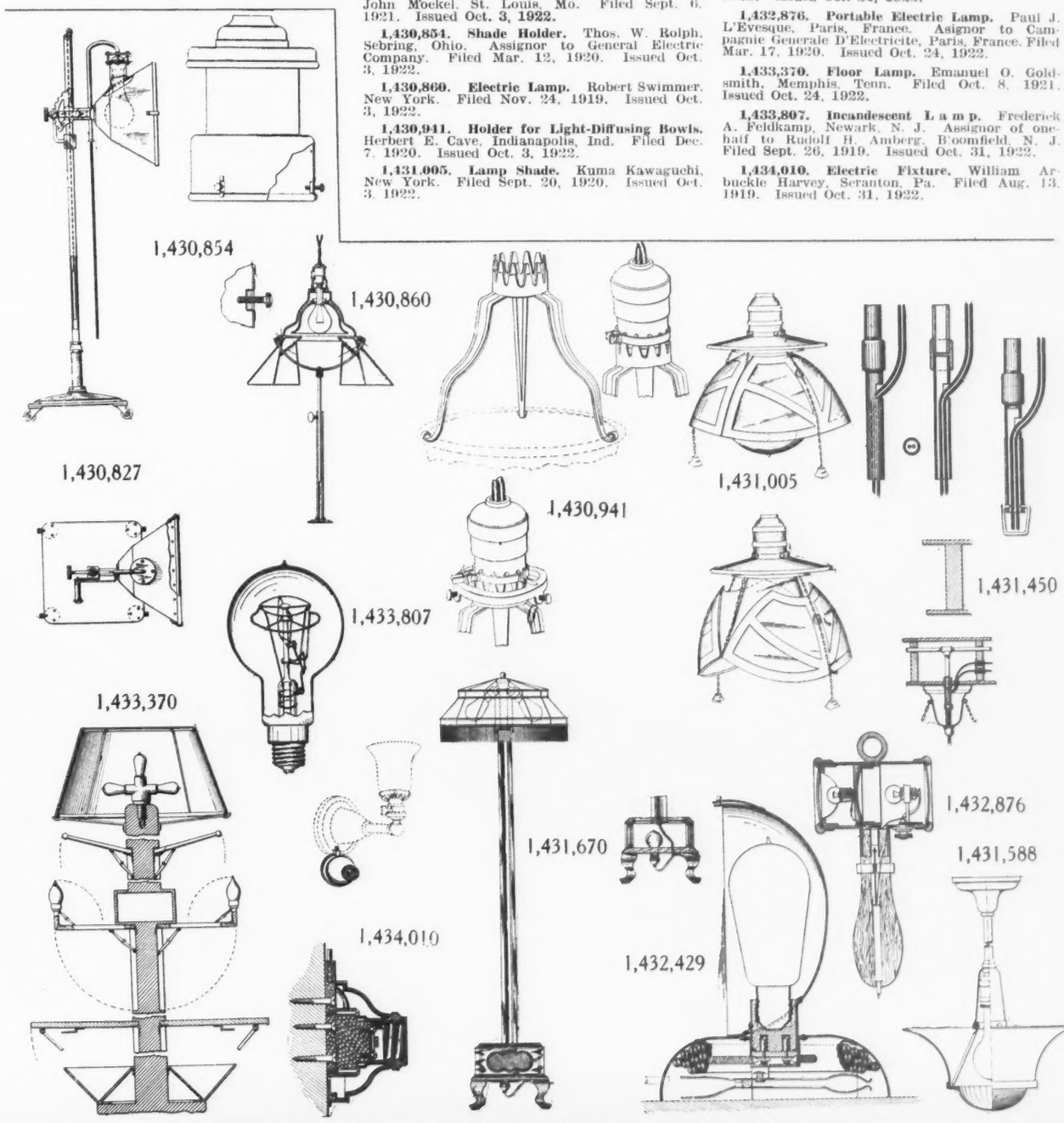
1,432,429. Portable Lamp. William H. Thorpe, Mt. Vernon, New York. Filed Sept. 19, 1921. Issued Oct. 24, 1922.

1,432,876. Portable Electric Lamp. Paul J. L'Evesque, Paris, France. Asignor to Campagnie Generale D'Electricite, Paris, France. Filed Mar. 17, 1920. Issued Oct. 24, 1922.

1,433,370. Floor Lamp. Emanuel O. Goldsmith, Memphis, Tenn. Filed Oct. 8, 1921. Issued Oct. 24, 1922.

1,433,807. Incandescent Lamp. Frederick A. Feldkamp, Newark, N. J. Assignor of one-half to Rudolf H. Amberg, Bloomfield, N. J. Filed Sept. 26, 1919. Issued Oct. 31, 1922.

1,434,010. Electric Fixture. William Arbuckle Harvey, Scranton, Pa. Filed Aug. 13, 1919. Issued Oct. 31, 1922.



Copies of illustrations and specifications for patents may be obtained from the Commissioner of Patents, Washington, D. C., for 10 cents each

New Merchandise to Sell and Where to Buy It



Here Are Dozens of New Ideas for Christmas Selling

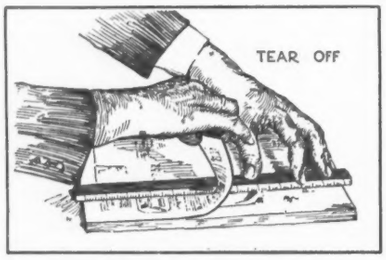
Electrical Gifts That Are Novel and Practical

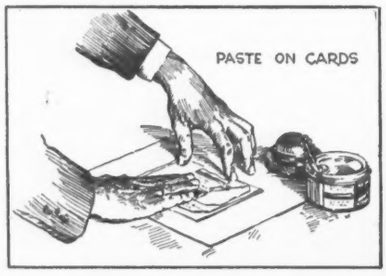


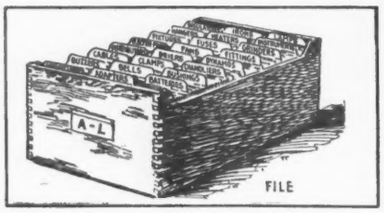
How to Use These Pages

Beginning with the September, 1917, number *Electrical Merchandising* has been furnishing its readers with the selective new-merchandise catalog service continued on these pages. By tearing out those items which affect your business and pasting them on filing cards, you can make a buying index that will put information on *what is made and who makes it* right at your finger's end.

Every item, with its illustration, will fit a standard 3-in. by 5-in. filing card. Or, if preferred, these items can be pasted on sheets of paper for binding in a loose-leaf catalog or folder.







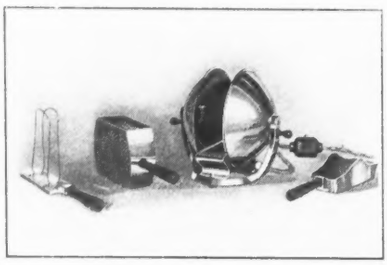
This section "New Merchandise to Sell" is an editorial text section prepared by the editors solely in the interests of readers of *Electrical Merchandising*. As its title explains, its purpose is to put before our readers information concerning the new merchandise and latest inventions on the market.

To be described here, articles or devices must be new and of general interest to our readers. These descriptions are solicited from all manufacturers, and the items are published free of all cost to the maker of the device, and without respect to advertising or any other consideration, except their interest to the reader. The editors are the sole judges of what shall appear in this section, and readers may depend upon the independent character of this service.

Electric Table Stove

Electrical Merchandising, December, 1922

A radically new idea in electric table stoves is embodied in the design of the new stove developed by the A. Mecky



Company, 1705 Allegheny Avenue, Philadelphia, Pa.

Two cup-shaped heating reflectors, much like miniature radiant heaters, are suspended on a sturdy framework. They face each other, separated by only two or three inches. In and out of this intervening space are slid the toaster, or the egg boiler, or the frying pan—and between the two batteries of concentrated heat the cooking is done in a jiffy.

The three utensils supplied are as follows: the toast rack, holding one piece of toast at a time; second, a container perforated on both sides, in which eggs may be thoroughly cooked without the usual water for boiling, or in which cereals may be warmed and crisped, and third, a frying pan.

The stove is solid nickel, and is rated at 600 watts.

Small-Size Electric Dishwasher

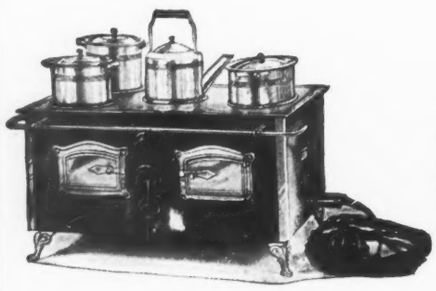
Electrical Merchandising, December, 1922

Small in size and light in weight—that is why the new "Ford" electric dishwasher was so named. The machine is only 23-in. high and 16-in. wide. It weighs 36 lbs. Because of its small size, it can be placed on the drainboard for use, and no special plumbing connections are necessary to carry water.

The machine has white enameled copper tank and aluminum base, and is provided with two wire dish trays.

It is manufactured by the United States Machinery Manufacturing Company, 324 Main Street, Springfield, Mass.





Toy Electric Range

Electrical Merchandising, December, 1922

Copper trimmed and equipped with four solid copper cooking utensils, the "Ever-Last" toy electric range functions like a real stove, and operates on ordinary house current.

It is zinc lined, and measures 14 by 9 by 8 in. It may be had from the Sanitax Electric Company, 145 East Twenty-third Street, New York City.

Electric Curling Iron

Electrical Merchandising, December, 1922

The Edison Electric Appliance Co., Inc., 5600 West Taylor Street, Chicago, Ill., has just perfected a new curling iron, which, it is declared, will give service far above any curler selling at anything near its price.

Its heating unit consists of nickel chromium wire wound on a porcelain tube in which a steel rod has been inserted for a support. The unit is packed in a brass shell with magnesium oxide and cannot be damaged by ordinary falls or knocks.

The new curler has an angle opening shield. All parts are heavily nickeled and buffed. The handle is of selected wood, properly insulated. Six feet of cord and an attachment plug are furnished with the iron.



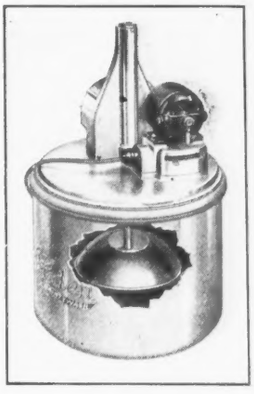
Small Washing Machine for Special Laundering

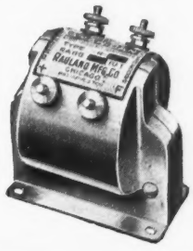
Electrical Merchandising, December, 1922

No matter how trustworthy her laundress is, there are always certain things that the housewife would prefer to wash herself rather than trust to others—delicate lingerie, blouses, stockings, handkerchiefs, laces, tea napkins. And particularly baby things.

For this special purpose, the Gillespie-Eden Corporation, of Paterson, N. J., are placing on the market a small washing machine, called the "Eden Dainty Wash." While this machine has a one sheet capacity it is only 21½-in. high and 12½-in. deep, and big enough to do the daily laundering of baby's things or the other delicate garments.

The machine consists of two parts—the cylinder-shaped tub with a smooth, unobstructed interior; and the cover, to which is attached the motor and the single vacuum cup which pumps up and down in the interior.





Audio Frequency Transformer

Electrical Merchandising, December, 1922

On account of the special shielding incorporated in the transformers made by the Rauland Manufacturing Company, 35 South Dearborn Street, Chicago, Illinois, inductive disturbances (howling) and distortion are said to be overcome, even though they be mounted close to one another.

The transformers are furnished in three types, R12, R13 and R21.

Household Refrigerator Unit

Electrical Merchandising, December, 1922

The Motorfrigerator Company, Lansdale, Pa., is placing on the market a new household refrigerator outfit which will be merchandised through electrical retailers. The ¼-hp. motor, running at 1,150 r.p.m. drives the horizontal double-acting pump with 3-in. bore by ½-in. stroke at 285 r.p.m. Circulation through the pump is so arranged that all working parts are properly lubricated. Valve chambers are in the cylinder heads.

The condenser is an oblong coil of ⅜-in. No. 20 gage copper tubing, air cooled.

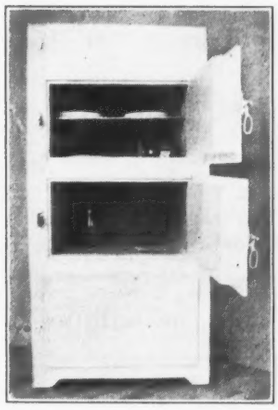
The expansion coil is of flat rectangular ⅜-in. copper tubing, of the direct-expansion open-coil type.

The expansion valve is of special design operated by sylphon bellows, adjusted to maintain 16 in. of vacuum automatically controlled by action of the pump.

The thermostat is operated with sylphon bellows, and is adjustable to working temperatures from 40 deg. to 48 deg.

The food compartment equals that of the average 100-lb. ice refrigerator. Its dimensions are 27 in. wide, 20 in. deep and 52 in. high, and the total weight when completely assembled is about 250 pounds.

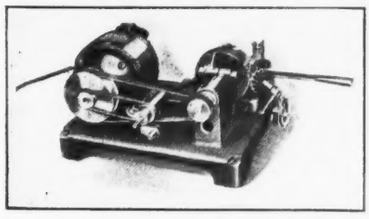
The refrigerant used is ethyl chloride.



Portable Grinder for Repair-Shop Work

Electrical Merchandising, December, 1922

A new portable grinder for grinding valves to a fixed angularity and for grinding "reseating" cutters adapted for cutting valve seats to an angularity identical with the valve angularity, has been developed by the Franklin Machine & Tool Company of Springfield, Mass.



This new "single purpose" grinder, which is especially designed to meet the needs of repair-shop work, can be assembled by the manufacturer for grinding valves to any desired angle, but it is not adaptable for adjustment from the angle to which it was originally set at the factory.

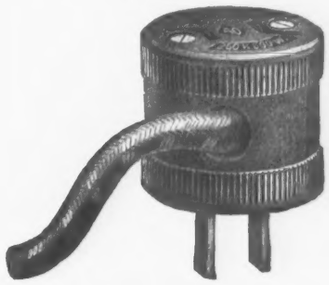
The Westinghouse motor used is mounted on a low, flat base and is located far enough from the grinding wheel, the cross slider, and the valve rotating members to prevent any motor vibration affecting the accuracy of the grinding operation.

Electric Plug

Electrical Merchandising, December, 1922

The "Add-On" plug manufactured by the Magnus Electric Company, New York, N. Y., is designed for the purpose of doubling the capacity of any outlet, so that two or more appliances can be operated from the same source without any inconvenience or trouble in wiring. The blades of the plug fit any standard flush wall receptacle or any separable attachment plug. The face of the plug is provided with the Magnus "L" slot, which takes any standard, parallel or tandem cap connected to any electrical appliance.

By simply insetting two or more "Add-On" plugs, one within the other, a number of appliances can readily be connected to a single outlet.



Variometer

Electrical Merchandising, December, 1922

"Cleared" is the name given to the variometer and other radio parts designed by the Machen Radio Manufacturing Company, 4639 East Thompson Street, Philadelphia, Pa.

Both rotor and stator are made of seasoned mahogany, and wound with No. 19 cotton covered wire. The wave length is from 200 to 600 meters.

Percolator Urn

Electrical Merchandising, December, 1922

The new addition to the family of "Hotpoint" servants will find hearty favor with discriminating holiday buyers. It is a percolator urn of distinctive design reflecting the utmost in good taste.

The body is of copper, heavily nickel-plated. Side handles are white metal, nickel-plated. Effective fiber insulators guarantee cool handles at all times. The urn is provided with the standard Hotpoint safety switch.

A special feature is the addition of a switch handle on the outside of the base. If the percolator should overheat, caused by contents boiling away, this handle will permit resetting of the safety switch without the necessity of removing the cap.

The Edison Electric Appliance Company, Inc., 5600 West Taylor Street, Chicago, Ill., is the manufacturer.



Continued on third and fourth pages following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card



Sales Helps for the Dealer



Show Window, Counter, Mail Advertising and Specialty Aids Which Manufacturers Offer to Help You Get More Trade

Use These Christmas Selling Helps to Speed Up Holiday Sales

New Christmas window material is being supplied to dealers this year by the Westinghouse Lamp Company, 165 Broadway, New York City, in the form of an attractive window strip reading "The Most Useful of All Presents—Electrical Gifts—Buy Them Here;" and four strikingly colored display cards. These four cards carry the suggestions: "Give to the Motorist," "Give to the Family a Radio Set," "Give Electrical Appliances," and "Give a Box of Six Lamps."

The company is also supplying dealers with holly paper bags which fit its automobile lamp kits, to add to their attractiveness as Christmas gifts—and two electros for Christmas newspaper advertisements.

To stimulate the sales of toy electrical trains this Christmas, the American Flyer Manufacturing Company, 2219 South Halsted Street, Chicago, is offering an attractive decalcomania transfer in bright colors, large enough to be seen without taking up too much space.

The General Electric Company is offering a speedy-change window display featuring the slogan, "Electrical Gifts Make a Merry Christmas," and suggesting Christmas tree lighting sets and toy transformers. The posters are of such a general nature that any dealer who receives this window display service can use it whether he handles "G-E" products or not.

The Edison Electric Appliance Company, Inc., 5600 West Taylor Street, Chicago, has prepared a complete holiday-season advertising service, including Christmas window posters, "red men" cutouts, Christmas price cards, and ready-to-use newspaper advertisements,—all designed to sell the idea of the electrical gift as "the best gift of all."

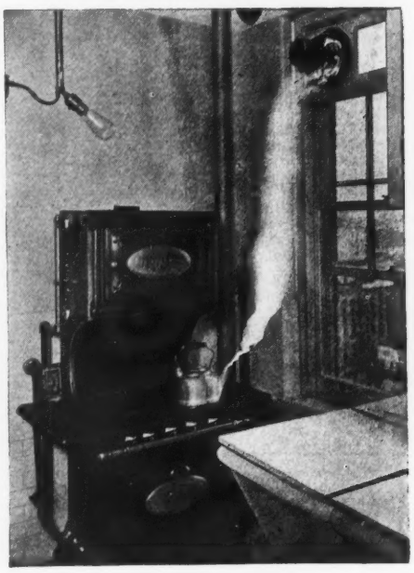
A Christmas Gift Appeal to the Husband

The number of clothes washers, ironers and other large electrical labor-savers sold as Christmas gifts this month will depend almost entirely on the appeal the electrical dealer makes to husbands. To help the dealer direct his advertising campaign at the husband, the Laundryette Manufacturing Company, Cleveland, O., has prepared an attractive letter-head containing a letter for mailing to a list of men prospects.

"A washing machine, bright and shining, beside your Christmas tree, will certainly make you feel that you have done something real," is the message of the letter.

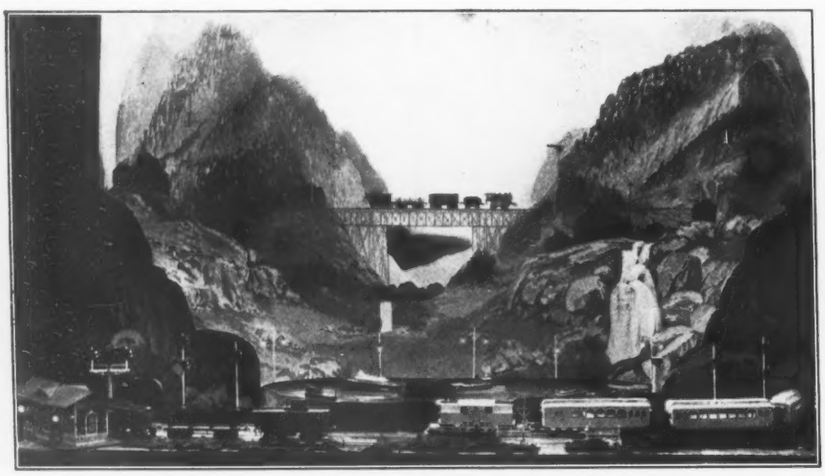
Attractive Christmas display cards and advertising lay-outs, featuring the slogan, "Make It a Laun-Dry-Ette Christmas," are also ready for distribution to dealers to speed up holiday sales.

Yes, You Can Sell Ventilating Sets for Xmas Presents, Too!



The possibility of selling electric ventilating sets as Christmas gifts is suggested to us by J. H. Carbone of the Wing company, New York City. The man who has an electric ventilating fan in his kitchen, knows the value of the device in keeping cooking odors out of the house, and should be a good prospect for the sale of other sets to give as Christmas presents.

A Toy Train Window That Will Make the Kiddies Gasp



A bit of Yellowstone Park in all its glory—trains charging in and out of dark tunnels, now glimpsed against the sky, bridging two mountains, an instant later shooting out of the mountain-side—clanging bells, flashing signal lights—that is the spirit of the toy electric railway system as pictured by the Ives Manufacturing Company, Bridgeport, Conn., in a new window display which it has designed for its dealers. A display as elaborate as this requires a scenery maker to design and stage hands to set up—but the manufacturer supplies everything, even to the wooden base, iron pipes, hooks, and directions for putting the display together. The striking pictorial effect will have no less an appeal for the busy Christmas shopper than the breath-taking speed of the trains for the small boy. It is an ideal display for Christmas.

The Cooper Hewitt Electric Company, 95 River Street, Hoboken, N. J., has ready for distribution Enginering Bulletin No. 104, describing the new "Labarc," or small, high-intensity arc, of the mercury-vapor type, in quartz. The bulletin itself contains a compilation of data that has never beeen accumulated before, of special value to engineers.

A "Satisfied Users'" Electric Range Book

Seven years ago, the Carleton Court Apartments Company of Buffalo, N. Y., installed ninety-five electric ranges in that apartment house. Recently, at the request of a Detroit realty company, it wrote something of its experiences with the ranges. The letter read, in part:

"During the seven years these stoves have been installed, we have had very small expense in replacing parts, the only expense with them being the cracking of the glass doors, occasionally, which can be replaced at small cost, and the burning out of the wire heating elements, which is mostly caused by tenants' carelessness.

"Our object in installing the electric range was, in the first place, to eliminate the expense of putting chimneys and flues in the building. Secondly, it also saved a great deal of money on decorating, because there was no smoke or soot to destroy decorations. And third, because of its dependability. It also lessens somewhat our insurance rates and fire risks, and our tenants are well pleased."

Letters such as this, from satisfied users, make excellent sales material, and the Standard Electric Stove Company of Toledo, Ohio, is making good use of them in a book which it is supplying its dealers. The book is in loose-leaf style, and contains copies of numerous letters from satisfied users of electric ranges. Even the names and addresses of these users are given, so that the salesman, in showing the book to his prospect, can point out to her letters from people in her own city or state.

Tap-Plug with New Positioning Feature



The Benjamin Electric Manufacturing Company, Chicago, has devised the "dispenser-display" card shown for counter display of its new No. 1080 "Tap-Lite."

Especial attention is invited to the fact that this plug has the new positioning feature, enabling the slots or plug to be turned to any position. In the design of the slots, which take standard parallel blade caps, the manufacturers have also looked ahead in the direction in which the parallel blade construction is moving and have made the slots of two sizes for polarizing.

December 11 to 16 Will Be Hoover Week

According to an announcement by the Hoover Suction Sweeper Company of North Canton, Ohio, the week of December 11th to 16th, 1922, has been designated as the time for annual "Hoover Week." As usual, a feature of Hoover Week will be a window display contest, and to make it even more attractive for the dealer to enter this year's contest the number of major cash prizes has been doubled. In addition there are thirty smaller prizes.

"Hoover Week" is being brought to the attention of the general public by national magazine advertising in December issues. This publicity will tie-up advantageously with the special efforts of dealers during the event. Special display material and literature are also being supplied by the Hoover Company.

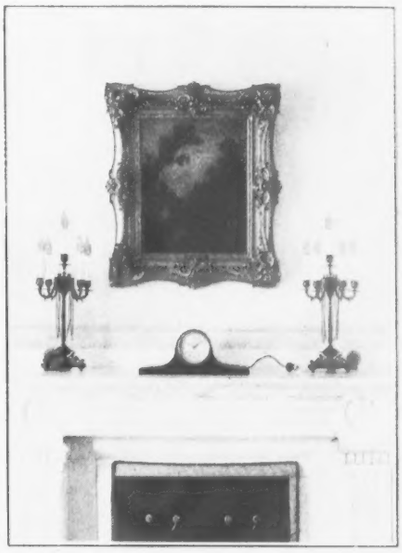
Vibrators for Athletes

Dealers are just awakening to the fact that there is a market among men for electric vibrators. The vibrator, always considered a beauty parlor device by the dealer, is now in great demand by the athletic type of man. Dealers who are demonstrating the invigorating and beneficial qualities of the electric vibrator to the men folks in their community find them to be eager customers. The type of people who are using vibrators is emphasized by the latest window display for dealers staged by the P. A. Geier Company of Cleveland.

"Mandy's Cat-Astrophe"

"Mandy's Cat-Astrophe," a 70-foot cartoon comedy, is the name of a short movie film ready for distribution by the Altorfer Brothers Company of Peoria, Ill. It points the lesson of electric laundering, and will be supplied on application.

An Electric Clock Folder for Your Files



A new idea in catalogs is embodied in a new folder just issued from the Warren Clock Company, Ashland, Mass., manufacturing electric clocks. This is a standard filing folder, labeled "electric clocks," designed to slip into its proper place in the dealer's cabinet file. In the folder there are seven reference sheets on electric time systems, and additional sheets will be issued from time to time. In this way, the dealer can have at his finger tips interesting reading matter and selling ideas on electric clocks. The photograph reproduced above, showing a clock disconnected, is taken from one of these sheets.

A Little Story of a Big Household Convenience

Any public speaker knows that his audience grasps his meaning more quickly when he puts it in story form. Equally effective is the little story about its automatic tankless water system, with which the Western Pump Company, Davenport, Iowa, opens its attractive booklet entitled "How Things Have Changed." The story is a simple one—of how a grandfather visits his son's suburban home, finds how he now has fresh water direct from the well, with his new water system, and how he decides to install the same system in his own home in the city. But it enables the chief advantages of the water system to be brought out, the details of construction being described in the following pages.

The Ivanhoe—Regent Works of the General Electric Company, Cleveland, Ohio, have just issued Catalog No. 366, on their "Crystal Roughed and Clear Line Electric and Gas Shades." The pieces are made of crystal glass, in various shapes and designs.

New Merchandise to Sell

(*Continued from third page preceding.*)



Combination Electric Heater and Cooker

Electrical Merchandising, December, 1922

A combination heater and cooker that will not only keep an ordinary room comfortable, but will cook, fry, boil or toast as well, has been developed by the Rogers Electric Laboratories Company, 2015 East Sixty-fifth Street, Cleveland, Ohio.

It is circular in shape, 21-in. high, 7-in. in diameter. There is an asbestos pad below the element, which prevents the heat from passing downward. The feet are also insulated with fiber. There is a cone-shaped reflector on the inside of the blue-steel shell. The current consumption is 600 watts.



Cabinet-Type Clothes Washer with Revolving Cylinder

Electrical Merchandising, December, 1922

"Built like a bridge," the new "Billion Bubble" washing machine is constructed throughout of steel, and is riveted together—not bolted. The revolving zinc cylinder in which the clothes are placed is enclosed in a square, covered cabinet, enamel finished.

The power wringer is operated by a one-handle control, which operates the rolls in both directions, locks the wringer, and locks the rolls in the neutral position while swinging the wringer in any desired position.

The Billion Bubble Washer Company, 523 Division Street, Davenport, Iowa, is the maker.

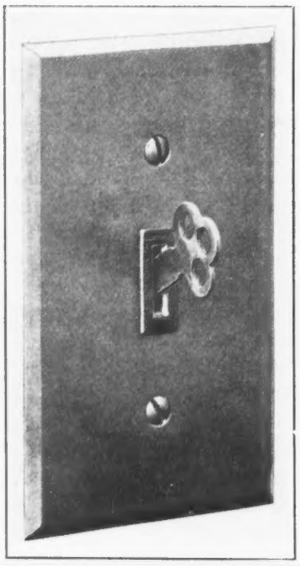
Porcelain Compound and Key Tumbler Switches

Electrical Merchandising, December, 1922

Three new switches have been placed on the market by the General Electric Company—a compound tumbler switch and a porcelain tumbler switch, both with wide mounting ears, and a locking tumbler switch.

The wide mounting ears are designed to simplify installation, and to prevent the loosening of the switch from the wall which sometimes results when the switch is not rigidly fastened to the outlet box. The wide ears, which are a feature of these switches, assure absolute alignment, regardless of the location of the box, as they lie directly against the wall surface and are rigidly held there by the mounting screws threaded into the outlet box.

The mechanism of the compound switch is entirely enclosed in a durable, dust-proof compound casing, while that of the other is enclosed in porcelain. Both have an indicating spot on the handle, showing when the current is on. The locking switch, with plate assembled, presents an almost plane surface. When inserted, the locking key acts in the same capacity as the handle of the other switches.



Radio Coil

Electrical Merchandising, December, 1922

The "G-E" unmounted coil, made by Gehman & Weinert, 42 Walnut Street, Newark, N. J., is the same coil as is used in the "G.W." 2-slide tuning coil.

On account of the impregnation with an insulating material of high dielectric strength, the manufacturer claims this device to be absolutely moisture proof.

Telephone-Receiver Holder

Electrical Merchandising, December, 19[illegible]

Most busines men appreciate the need of a telephone-receiver holder that permits the free use of both arms while telephoning, for making notes or taking messages.

The receiver holder developed by the Hoban Receiver Holder Corporation, 347 Fifth Avenue, New York City, by a single lift automatically connects one with the operator. Then it adjusts the receiver to any position convenient for one's hearing and holds it in this position, leaving both hands free. Another movement of the holder automatically does the disconnecting.

Wall Lamp

Electrical Merchandising, December, 1922



The "Wall Ette," a handsome wall lamp, is the newest number presented by the Colonial Lamp & Fixture Works, Inc., Chicago. In appearance it resembles a bridge lamp without the pedestal and may be moved about to fit the furnishings of a room in much the same manner, for it is hung on the wall as is a picture.

The lamp and shade are supported by a silk rope or flexible metal rope as desired, carried through a graceful arm which is attached to a wall plate. A metal tassel at the other end of the rope counterbalances the shade and permits it to be adjusted to any height to better fit in with the surroundings or to give better light. The silk rope or flexible metal rope adds a distinctive touch to the "Wall Ette."

Electrical connections are made by means of a silk cord and plug which are a part of all Wall Ettes.



Fixture Shadow Shields

Electrical Merchandising, December, 1922

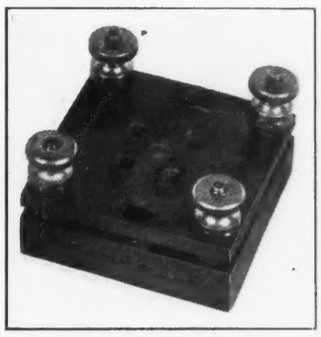
To overcome the undesirable shadows thrown on the walls and ceiling by the chains and cords of indirect and semi-indirect fixtures, the Macbeth-Evans Glass Company, Pittsburgh, Pa., is marketing a shadow shield made of Macbeth-Monax glass. The shields can be put on lamps of 100 to 1,000 wattage inclusive.

Polychrome Table Torch

Electrical Merchandising, December, 1922

Especially for the Christmas season, the Eagle Wood Turning Company of 509 West Monroe Street, Chicago, is offering its electric table torches packed in neat holly boxes, ready not only for the dealer to sell but also for the purchaser to present as a gift.

The torches are 15½-in. high, and have genuine mica cylinders through which the lamp glows softly and without glare. The cylinder is mounted on a polychrome base.



Tube Socket

Electrical Merchandising, December, 1922

Two square blocks of paneling, the lower block ⅝-in. thick, the upper ¼-in. thick, are used in making the 1½-volt tube socket manufactured by the Akron Specialty Company, 824 South High Street, Akron, Ohio.

As the use of this socket and a 1½-volt tube does away with a storage battery, a very efficient and inexpensive set may be constructed.

Drill Press

Electrical Merchandising, December, 1922

Automatic starting and stopping of the motor is a feature of the drill press made by Joseph W. Jones, 29 West Thirty-fifth Street, New York City.

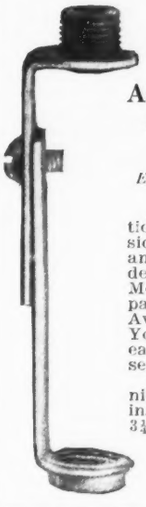
The drill press is specially adapted for light drilling operations. The automatic action reduces the wear, and electric current consumption to a minimum.

Bridge Lamp

Electrical Merchandising, December, 1922

"Right over the center of your card table—a soft, free-from-glare light for everyone—and you can move your table just where it's most desirable. When not used for bridge, the arm slides down to make a beautiful conventional floor portable."

Above is the way the Faries Manufacturing Company, Decatur, Illinois, describes its new bridge lamp. This lamp has a black and gold silk shade, is finished in polychrome black and gold, and is adjustable for height, reach and swing.



Adjustable Extension for Candle Fixtures

Electrical Merchandising, December, 1922

A simple and yet practical adjustable extension for candle fixtures and brackets has been developed by the B & L Metal Stamping Company, Inc., 155 Jamaica Ave., Brooklyn, New York. Adjustment is easily made by one small set-screw.

The three sizes furnished are: 1⅜ in. to 2⅜ in.; 2¼ in. to 3 $^{5}/_{16}$ in.; and 3¼ in. to 4 $^{5}/_{16}$ in.

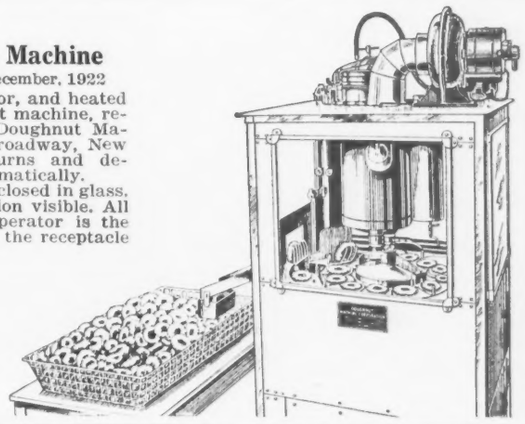
Electric Doughnut Machine

Electrical Merchandising, December, 1922

Operated by a ¼-hp. motor, and heated by electricity, the doughnut machine, recently announced by the Doughnut Machine Corporation, 1170 Broadway, New York City, cuts, frys, turns and delivers the doughnuts automatically.

The entire machine is enclosed in glass, thus making every operation visible. All that is required of the operator is the depositing of the dough in the receptacle at the top.

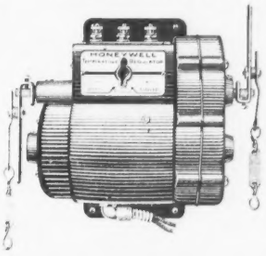
A high-speed blower carries away all odors. This feature makes the machine an excellent trade-drawer when installed in a store window.



Heat Regulator

Electrical Merchandising, December, 1922

A new repulsion type of electric motor for temperature regulator use has been placed on the market by the Honeywell Heating Specialties Company, of Wabash, Ind. The motor and transformer are integral, the device being a self-contained unit housed in a solid cast frame, instead of being two devices assembled into a single unit. The device was developed by engineers of the company in co-operation with the General Electric Company.



Energy is transmitted from the motor to a train of "figure eight" gears, thus developing more power than would ordinarily be required for temperature control service. The lifting power of this motor, one inch from the crankshaft, is one hundred pounds. The motor is connected in the usual way to A.C. house lighting circuits (the same motor with modifications being furnished for D.C. circuits) through standard conduit fittings in accordance with the Underwriters' Code.

At the firing periods, drafts may be found so set that ashes, smoke and dust would be scattered in the basement when cleaning out and fixing the fire. In such a case the owner simply steps over to the motor and snaps the basement switch, handily located at the front of the motor, reversing the position of the drafts and then snaps it back again to restore the thermostatic position after attending to the fire.

Electric Sign Reflecting System

Electrical Merchandising, December, 1922

The Cardway "electric-sign amplifier" consists of a series of light projecting members arranged to outline the letter, each constructed to simulate the incandescent lamp, which it is intended to replace on the face of the sign. Within the sign box proper, light is directed through these lenses from one or more incandescent lamps, according to the size of the sign and the number of lenses.

These light projecting members or lenses are of the Fresnel or spherical type, with a concavo-convex light diffusing central portion and a series of prismatic zones formed on the inner surface. Attached to these spherical members and set at an angle of 45 deg. are circular individual mirrors of silvered glass or polished metal. The lenses are of pure lead-crystal glass and the mirrors, or reflectors, double painted and silvered, are attached to them by wire made from cold-drawn monel metal that cannot crystalize or corrode.

These amplifiers are so adjusted that the mirrors face the incandescent lamp, within the sign box, projecting a beam of light to the outside through the spherical members. Through these the rays of the bulbs are reflected and magnified. This gives a clear and a positive outline to each letter. The devices are manufactured by the Cardway Corporation at 342 Madison Avenue, New York City.

Loud Speaker

Electrical Merchandising, December, 1922

The two special features of the "Clarion" radio horn, manufactured by the Marfield Radio Manufacturing Company, 60 Grand Street, New York City, are the volume regulator, which controls the sound chamber, and the tone modulator, which gives any desired modulation.

Statuary bronze is the standard finish, but nickel plated can be furnished if desired. A single ear 'phone is used.



Tuning Dial

Electrical Merchandising, December, 1922

The grip on the rim of the tuning dial, designed by the Workrite Manufacturing Company, Cleveland, Ohio, enables the operator to tune within any fraction of an inch.

The diameter is 3½ in. and it is made for either ¼-in. or $^{5}/_{16}$-in. shaft.

Continued on third and fourth pages following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card.



Gossip of the Trade



Glimpses of Electrical Men at Work, at Play, and in Convention as Caught by Lens and Pencil

1923 Fixture Market to Be Held in Hotel Rooms, Cleveland, January 15 to 20

The fourth annual Lighting Fixture Market will be held in the Winton Hotel, Cleveland, Jan. 15 to 20, 1923. The Winton Hotel is located in the downtown business section of Cleveland, a short block from one of the three busiest corners in the world, and is particularly equipped to take care of exhibits and large gatherings. A large number of conventions, many of them having exhibits in connection, are entertained at the Winton each year.

"At the 1923 Fixture Market, hotel rooms will be used to show samples, instead of using the open booths as last year at Milwaukee," announces Secretary C. H. Hofrichter of the National Council of Lighting Fixture Manufacturers, with headquarters in the Gordon Square Building, Detroit Avenue and West Sixty-fifth Street, Cleveland. "The opportunity for showing products to buyers in the seclusion of a hotel room where one can talk things over without fear of interruption meets with the approval of a large number of exhibitors.

"There has been considerable demand for a hotel-room Market and a great many industries seem to like the hotel type of Market better. Also in consideration of the fact that no appeal will be made to the public this year, it was felt advisable to give the Hotel Market a trial, before plans for standard equipment for a Permanent Fixture Market were made."

The Hollenden Hotel has been selected as headquarters for the Dealers, during the week of the Convention. The business sessions of the dealers will also be held in this Hotel.

The following features for the convention program are planned:

Address—"The Strong Economic Position of the Fixture Dealer." By J. C. English, president J. C. English Company, Portland, Ore.

Address—"A Practical Program for Better Business, and the 1923 Business Forecast." By a representative of the Babson Institute.

Address—"How Glass is Made." By a representative of Illuminating Glassware Guild.

Discussion on the subject. "The Copying of Designs." By Albert Wahle, President Albert Wahle Company, Inc., and Robert Biddle, president National Council Lighting Fixture Manufacturers.

"Selling a Fixture to a Retail Customer." A demonstration to be staged by the C. J. Netting organization of Detroit.

"Piracy and Its Treatment." A demonstration to be staged by W. A. Hadler, President W. A. Hadler Mfg. Co., Buffalo, N. Y.

"High Class Buying." A demonstration to be staged by E. R. Gillet, President, Gillet Bissell Co., Toledo, Ohio.

The headquarters' office of the Lighting Fixture Dealers Society of America, 231-233 Gordon Square Building, Cleveland, is already receiving communications from dealers located in all sections of the country, making hotel reservations for the week of January 15. Because of several other conventions to be held in Cleveland at that time, it is important that dealers write to the Hollenden Hotel immediately and make their reservation.

The Utica Electrical Supply Company, Inc., is the new name of the business formerly conducted as the Utica Electrical Appliance Company, Inc., of Utica, N. Y. O. Fred Rost is president of the company, L. Earl Hall is vice president and Ira J. Leonard is secretary-treasurer. The company announces that this change in name in no way effects its personnel or finances.



Thirty-three per cent preparation; 33 per cent perspiration; 33 per cent demonstration and 1 per cent inspiration. That's the formula for making sales offered by F. C. ("Buckeye") Foster, of the Laundryette company, Cleveland. Here you see this restless sales manager hopping off for Detroit, via the air-line!

Western Association of Inspectors to Discuss Code Revision

The 18th annual meeting of the Western Association of Electrical Inspectors, which will be held at the Hotel Sherman, Chicago, January 23, 24 and 25, will be one of the most important from a technical and practical standpoint that the association has ever held. Practically the entire program will be devoted to a presentation and discussion of proposed changes in the National Electrical Code.

It is planned to have the chairman of each standing committee or the chairman of each technical sub-committee of the Electrical Committee of the National Fire Prevention Association, present the changes in the Code related to the work of each committee and explain the reasons for and import of each suggestion.

Electrical Advertising in Indianapolis Papers

In connection with the advertising campaign which the Sanborn Electric Company is carrying out at Indianapolis for the sale of electric washing machines and vacuum cleaners, W. H. Morton, secretary of the company (and formerly executive manager of the National Association of Electrical Contractors and Dealers), has been making an analysis of local newspaper advertising of electrical products being done in Indianapolis. For example, the *Sunday Star* of October 8 showed the following electrical advertising:

Total electrical advertising of all kinds—528 column inches or 7,396 lines.

Advertising of strictly electrical stores—456 column inches or 6,388 lines.

Advertising of stores other than electrical—72 column inches or 1,008 lines.

Number of concerns advertising—24.

The Sanborn Company is carrying on an eight-weeks' campaign which includes two full-page ads and six 800-line ads.

The Galvin Electric Manufacturing Company of St. Louis, Mo., manufacturers of small motors and radio parts, is planning to move into a new factory building at 3320 South Broadway. The new plant contains about four times the amount of manufacturing space available in the Galvin company's present location.

The Triumph Lamp Works, Inc., formerly of Union Hill, N. J., is now located at 207 South Meridian Street, Indianapolis, Ind.

Let Your Car Say It—"If It's An Electrical Gift, We Have It"



A good stunt to let the town know about electrical gifts and where to get them, is shown in the picture. The San Francisco electrical concern which tells about it, installed a shining new electric percolator on the front of one of its cars, where everyone could see it. The sign directly behind reads—"If it's an electrical gift, we have it!" Miniature colored lamps strung around the car made it a center of attraction on its nightly peregrinations.

Congressional Figures Show that Merchants Did Not Profiteer

Here is cheerful news for the American retailer. Broadly speaking, he is not the profiteer he has been pictured, and he will be given a rather clean bill of health in the forthcoming report of the Joint Commission of Agricultural Inquiry.

Chairman Sydney Anderson, in forecasting the section of the report which will deal with distribution, said: "A study of the charts and figures containing the information brought out by our inquiry indicates that during the period of rising prices which we have had under consideration,—that is, 1913 to 1921 inclusive, the percentage of margin for operating expense and profit which the retailer took from the dollar paid by the consumer did not increase. In other words, if the proportion of the consumer's dollar the retailer paid for merchandise in 1913 was 70 cents and operating expense and profit 30 cents, the same ratio was retained during the period of 1913 to 1921. In some instances the percentage of margin was reduced. However, the relation between operating expense and profit changed considerably during the period. As operating expenses advanced, profits reduced."

The report will contain a composite chart showing the distribution of the consumer's dollar by the retail dry goods, grocery, shoe, clothing and hardware dealers. For 1913 the gross margin taken by the retailer out of the dollar received from the consumer was 29.16 cents of which 6.8 cents was profit, while for 1921 the gross margin was 26.16 cents of which 1.13 cents was profit. In 1913 expense, exclusive of profit, was 22.36 cents and in 1921 it was 25.03 cents, showing an average increase in operating cost of 2.67 cents and a reduction of profit of 5.67 cents, while the proportion of merchandise cost included in the consumer's dollar was 4.0 cents.

Out of the profit indicated by these figures must be deducted such items as shrinkage in inventory value of merchandise, federal taxes and stock moving reductions in response to price declines or movement of stock accumulation.

"Our report will show," said Chairman Anderson, "that clothing retailers took their largest profit from the consumer's dollar in 1913. From 1916 through 1921 the margin steadily decreased, except in 1919 when heavy sales temporarily reduced the ratio of expense to sales, resulting in a lower cost of operation for each dollar's worth of merchandise sold and a consequent increase in profit. In 1921 the industry showed a trade profit of 1.3 cents per dollar of sales. The report will show that the average profit of clothing retailers during the entire period, 1913 to 1921, was 6.10 cents per dollar of sales."

According to Chairman Anderson, the hardware profits for the same period averaged 5.35, with 8.3 cents per dollar of sales as the peak in 1916.

In the retail shoe trade, average profits for the entire period 1913-1921 were 6.17 cents per consumer's dollar. The high profit mark was reached in 1919 when the average profit was 9.36 cents.

Retail dry goods profits averaged 5.3 cents over the same period and were highest in 1916 when they averaged 7.3 cents per dollar.

Harry J., Max D., and Cy Gruber, "the three Gruber brothers," have gone into business together at 442 Broadway, New York City, and will specialize in high-grade fixtures, parts, and accessories. Cy and Max Gruber have been associated with the Lion Electric Manufacturing Compay, New York City, and Harry J. Gruber has for years been a member of the sales staff of the Lightolier Company. The three Gruber brothers are well known in the fixture trade of New England and the Middle West as a result of their ten years of travel in those fields.

L. G. Hawkins of L. G. Hawkins & Company, Ltd., London, has arrived in America for a short business visit. Mr. Hawkins reports that British trade conditions in the electrical field are slowly improving. Unfortunately the acute depression of the last few months has considerably increased competition and in many instances lower prices than in pre-war days exist.

English central stations or so-called "electricity undertakings" are now more keenly interested in current-consuming devices than ever, now that the war loads have fallen off. Many are renting heavy cookers at nominal rates. While in America Mr. Hawkins may be reached through the New York offices of *Electrical Merchandising*.



Thomas A. Edison was a recent visitor at the Schenectady plant of the General Electric Company, where he returned to renew old acquaintances with former co-workers, after nearly a score of years. Among the objects of special interest that Mr. Edison inspected were the new high-powered vacuum tubes, the recently perfected mercury boiler and the machine for registering the voice by photographic means on motion-picture films in order to produce the long-looked-for "talking movies." Dr. Steinmetz also gave an exhibition of artificial lightning for Mr. Edison's benefit, and the two wizards are here seen examining fragments shattered by the man-made bolts.

New Merchandise To Sell

(*Continued from third page preceding.*)

Finished Electric Outlet for Plugging in Lighting Fixtures, Lamps or Appliances

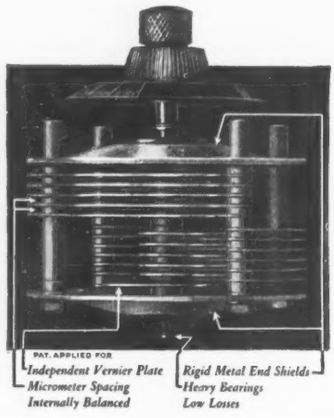
Electrical Merchandising, December, 1922

"Base-O-Lite" is the name of the new finished electric outlet offered by Base-O-Lite Products, Ltd., Detroit, Mich., into which not only appliances, but wall brackets and ceiling fixtures may be plugged, and as easily detached. An ordinary lamp bulb or the most elaborate fixture attaches to the outlet equally well. The same outlet is for installation on walls or ceilings—every one a convenience outlet.

Any lighting fixture may be attached to the outlet—the method being by either one of the following two distinct supporting means: (1) The 1½-in. opening in the center of the cast plate contains a female thread ⅝- in. deep, six to the in. (2) Two pairs of 8/32 tapped holes, the horizontal pair being two in. from center to center across the opening in the plate and the vertical pair being 2/34 in. from center to center across the opening in the plate at right angles to the first pair of holes.

The outlet consists of a regulation iron box; a cast iron plate with receptacle attached, for standard parallel blades; and a brass face plate and plug. It is for use everywhere on a 660-watt, 250-volt circuit.





Radio Condenser

Electrical Merchandising, December, 1922

By means of a special arrangement, the vernier attachment on the "Vernitrol" condenser, made by the Malone-Lemmon Laboratories, 342 Madison Avenue, New York City, can be controlled without disturbing the main plates. In addition no extra space is required for this vernier feature.

Four supporting columns are used for the aluminum plates, which, the manufacturer declares, are spaced with micrometer precision.

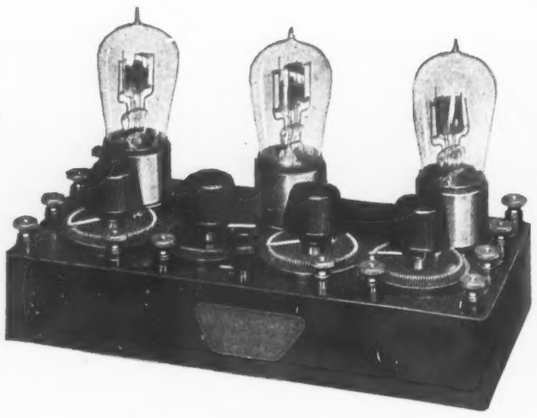
Thermostatic Relay Switch

Electrical Merchandising, December, 1922

A new type of switch for the thermostatic control of motors, electric heating units and other electrical circuits has been developed by the Minneapolis Heat Regulator Company of Minneapolis, Minnesota.

The relay is operated on an entirely new principle, employing what is in reality a double control switch, which provides a low voltage circuit to the thermostat.

The unit is complete in itself. No additional equipment of any kind is required, as the transformer is built into the mechanism. Installation can be made easily and quickly, as no conduit or high current wiring is required between switch and thermostat.



Detector-Amplifier Unit

Electrical Merchandising, December, 1922

Amateurs, professionals and schools, and in fact anyone who has to do with radio, will appreciate this complete detector-amplifier unit, just introduced by Betts & Betts Corporation, 635 West Forty-third Street, New York.

In a space of only 5-in. by 10-in., three sockets, two audio-frequency transformers, three rheostats, potentiometer, and all necessary terminals are mounted. This compact construction reduces wireing to a minimum, thereby overcoming the usual local capacity effects.

The unit is fully wired and ready to connect with any hook-up.

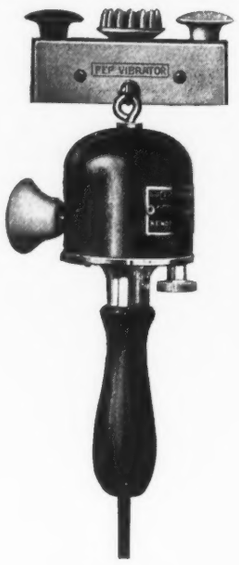
Automobile Ammeter of Simplified Construction

Electrical Merchandising, December, 1922

An automobile ammeter that has no electrical coils or connections has recently been developed by the Westinghouse Electric & Manufacturing Company. It is adapted also for use on motor boats, aerial craft, farm lighting plants, radio sets and for charging batteries.

The design of this "BT" ammeter involves a radical departure from the principles used in other ammeters, in that no wire connections or coils are used. The case of the instrument has a magnetic yoke or loop projecting to the rear, through which is passed the current carrying cable, which functions as a coil. Pivoted on a shaft is a soft iron vane which takes up a position corresponding to the relative strength of the permanent, and the electro-magnetic poles. The shaft carries the usual pointer which indicates the value of the current on a dial.

This construction simplifies installation on a car system, for the only operation necessary is to pass the dash board cable through the opening in the back of the instrument.



Vibrator

Electrical Merchandising, December, 1922

The "Pep" vibrator recently developed by the N. E. Norstrom Electric Manufacturing Company, 115 South Dearborn Street, Chicago, Ill., employs a patented method of operation which differs from that generally used, in that vibration is produced by means of an electromagnet operating on a 110-volt alternating current circuit. The flexible armature produces a smooth, powerful, lateral motion with percussion which it is declared will not injure the most delicate nerves.

The machine is thoroughly insulated, to eliminate shock even when the vibrator is used with wet hands. The manufactures points out that since there are few wearing parts and none to get out of order, the machine is guaranteed to last indefinitely.

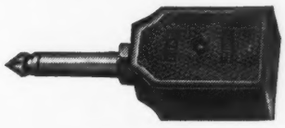
Vacuum Tube Socket

Electrical Merchandising, December, 1922

Having its own Bakelite plant, the King Sewing Machine Company, Buffalo, N. Y., is able to produce the highest quality of tube sockets, dials and other radio accessories at a price even less than inferior makes.

The tube socket, which is machined to an accuracy of 0.002 of an in., is supplied in black and mahogany finish. All metal parts are nickel plated.

What's new on the market? These pages will tell you. ☛



Radio Plug

Electrical Merchandising, December, 1922

The new "Ajax" radio plug No. 17, made by the Ajax Electric Specialty Company, Ajax Building, St. Louis, Mo., fits all standard jacks, and takes any type of cord terminal, tip, spade, round, or plain. It is for use with one or two phones.

Small-Space Socket

Electrical Merchandising, December, 1922

The new small-space socket made by the Alden-Napier Company, Department S, 52 Willow Street, Springfield, Mass., is designed to take up little room, making it particularly valuable where two and three tubes are to be used. It is moulded of genuine condensite, and is said to be uneffected by the heat of the bulbs or the heat of the soldering iron in soldering connections.

Metal Heating Pad

Electrical Merchandising, December, 1922

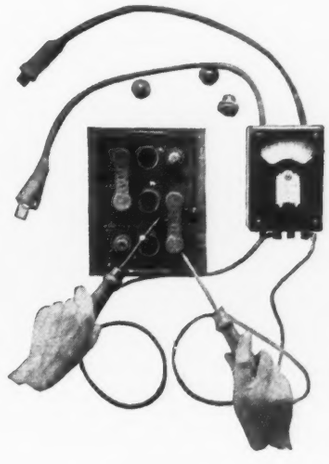
A new feature of the metal heating pad made by Ingersoll Electrical Products, 109 West Austin Avenue, Chicago, is the provision of an elastic belt and clasps, so that the pad may be strapped securely to the body in any position desired. Embrocation pads for the treatment of rheumatism, neuritis, and inflammation are also provided, for application to the skin underneath the heating pad.

Electric Trouble Detector

Electrical Merchandising, December, 1922

The new "Hyrate" trouble detector offered by the Service Station Supply Company, Detroit, Mich., is a portable electrical testing outfit designed for locating any electrical trouble in any make of automobile. Among other uses it is specifically adapted for the following:

For testing generators, starting motors, switches, cut-outs, wiring for grounds, open or short circuits, ignition apparatus, storage batteries, horns or lights. There are no external shunts or complicated connections to be made.



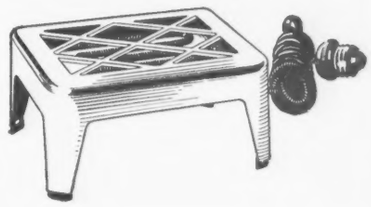
Aluminum Table Stove

Electrical Merchandising, December, 1922

"Radio" is the name of the new aluminum electric table stove offered by the Gem Manufacturing Company, 405 Stevens Building, Detroit, Mich.

This little stove is a very compact, two-piece device, the bottom plate encasing the asbestos and resistance wire being held in place by a series of projecting lugs. Twenty-gage sheet aluminum is used throughout, with a velvet finish.

Levien's Sales Company, 164 Fifth Avenue, New York City, is the sales distributer.

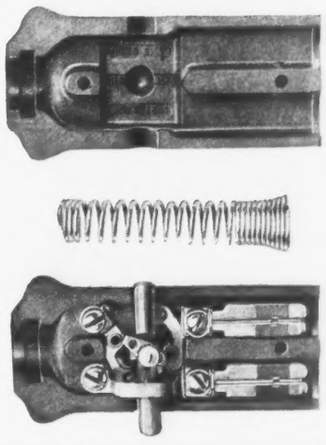


Bell-Ringing Transformer

Electrical Merchandising, December, 1922

Two new steel-clad bell transformers have recently been added to the line of blue porcelain-clad transformers for signal service made by the Standard Transformer Company, Warren, Ohio.

These new transformers are made with single and three voltage steps on the secondary side. The primary is wound for all commercial voltages and frequencies, there being a model for each service. The cores are made of high-test silicon steel, which is said to give such a low loss that the most sensitive house type watt-hour meter will not record it. The steel cases are blue enameled.



Appliance Connector and Switch

Electrical Merchandising, December, 1922

To its line of push-button specialties, the Cutler-Hammer Manufacturing Company, of Milwaukee, has recently added the "C-H 70-51" switch connector—a device which combines, in one Thermoplax housing, universal clips for engagement with contact terminals of practically all irons and table appliances, and the quick make-and-break switch mechanism of 660 watts similar to that used in the feed-through switch.

The casing is made in two halves, removal of one exposing the two terminal screws at the top to which the ends of the conductor are attached. A spring coil prevents kinking of cord and prevents wear. The design is such that complete engagement of the contact clip with the posts of the appliance is possible with no interference with the usual post guard.

Battery Charger

Electrical Merchandising, December, 1922

A new type radio and automobile battery charger for convenient home use is announced by the Valley Electric Company, 3157 South Kingshighway Boulevard, St. Louis, Mo. The new model has been designed so that it is suitable for installation and use in any room in the home. Similar in appearance to a watthourmeter, it is enclosed in a moulded glass cover which shows all working parts. The material used in the contacts is designed not to stick. No bulbs are used.

The Valley Type A and B charger will charge a 6-volt A radio battery or any make automobile battery at a 5-ampere rate without the use of lamps or other connections. It will also charge 22½-volt and higher voltage B radio batteries.

This new model charger can be plugged in on the home lamp socket like an ordinary electric light bulb. It connects to the battery by means of clamps which are furnished with the instrument. The outfit produces a quick tapering charge at a trifling cost and is declared to be proof against harming or overcharging a battery.

Crystal and Vacuum Tube Receiving Sets

Electrical Merchandising, December, 1922

Henry Hyman & Company, Inc., 476 Broadway, New York City, announce that they are now offering a complete line of wireless apparatus under the trade name "Bestone," including not only individual parts but a wide range of complete receiving sets, both crystal and vacuum tube. An idea of the design of the new No. 707 set may be had from the accompanying illustration.



Continued on third page following, for your convenience in clipping and filing. Each item will fit a 3 x 5 in. standard filing card

The Simplex Wire & Cable Company of Boston has established a branch office in New York City at 120 West Thirty-second Street, of which Joseph C. Brobeck has been appointed manager.

F. R. Ewing has recently become manufacturers agent in the States of New York and New Jersey, representing the Acme Electric Heating Company of Boston, manufacturers of a line of industrial heating appliances including glue pots, space heaters, coffee urns, melting pots, range discs, sterilizers, tailors irons, laboratory equipment, etc. Mr. Ewing's headquarters are in the Marbridge Building, Room 440, 1328 Broadway, New York City.

G. P. Atkinson, for several years connected with the sales organization of the Weston Electrical Instrument Company of Newark, N. J., has opened an office in Atlanta, Ga., for the territories of Georgia, South Carolina and northern Alabama, where he will represent the Weston Company in addition to several other well-known lines of electrical equipment.

W. S. Gordon, for the past twelve years with the molding department of the Bakelite Corporation, has been appointed sales manager of the molded products division of the Johns-Pratt Company of Hartford, Conn. Mr. Gordon will make his headquarters at the factory in Hartford.

The Johns-Pratt Company of Hartford, Conn., announces the appointment of George Saylor as Western sales manager of its electrical division, with headquarters at 36 South Desplaines Street, Chicago, and L. F. Carleton as district sales manager, electrical division, with offices in the Boatmen's Bank Building, St. Louis.

Frederick B. Larsen has recently become associated with the Bryant Electric Company of Bridgeport, Conn., as field representative for South Carolina, Georgia and Florida. Mr. Larsen, who will make his headquarters at Atlanta, was formerly connected with the Hunter Electric Company of Clearwater, Fla., and prior to that was for twelve years sales representative of the Robbins & Myers Company in the South Atlantic States.

The Harlo Manufacturing Company, Inc., of New York City, manufacturer of Victory heating appliances, has opened a Chicago office at 12-18 South Clinton Street. The company has recently added to its line a new turning toaster and three new sizes of electric stoves.

The Frank H. Stewart Electric Company of Philadelphia. electrical jobber, announces that the company has purchased the property at 629 Filbert Street, which has been turned into a warehouse. Says an official of the company, "We are now annexing another building that we own at 35 North Seventh Street, a four-story basement building, to our factory at 37 and 39 North Seventh Street, formerly known as the 'Old Mint Building.' We now occupy 35, 37 and 39 North Seventh Street, 629 and 631 Filbert Street and the rear of 41 North Seventh Street, besides using outside warehouses."

The Black & Decker Manufacturing Company of Baltimore, Md., announces that its Philadelphia office, formerly at 318 North Broad Street, is now located in new quarters at 824 North Broad Street.

W. R. Noe & Sons, with showrooms at 43-47 East Tenth Street, New York City, manufacturers of boudoir, table and floor lamps, have moved into their new three-story factory building at Willoughby and Raymond Streets, Brooklyn, N. Y. The new concrete building contains 34,000 sq.ft. of floor space in which the company will do the casting, spinning, stamping and finishing of the metal parts for its portable lamps.



M. K. Pike, general sales manager Northern Electric Company, Montreal, Que., who has been elected president and chairman of the executive committee of the Electrical Co-operative Association, Province of Quebec, for the year 1922-23. Mr. Pike is also president of the Canadian Supply Jobbers' Association and is a member of the executive committee of the Canadian Electrical Association.

The Schwartz Electric Company of New York City has opened a new store at 130½ East Twenty-eighth Street, where, in conjunction with electrical contracting, the company will carry a full line of electrical appliances and supplies.

The Westinghouse Merchandising Division is represented at the company's Pittsburgh office by F. C. Albrecht; at Philadelphia W. P. Cochran has temporarily been placed in charge; and at Detroit F. D. Koelbel has been made acting manager.

The Charles Freshman Company, Inc., of New York City, manufacturer of the "Antenella" and other radio devices, has moved to new and larger quarters at 97 Beekman Street.

The Cino Radio Manufacturing Company of Cincinnati, Ohio, 218 West 121st Street, formerly a partnership owned by Russell M. Blair and Hamlin R. Fordyce, has recently been incorporated under the laws of the State of Ohio. Mr. Blair and Mr. Fordyce will continue in active management of the business and there will be no change in policy in the sales or engineering divisions of the company.

William A. Bittner has recently taken over the interests of Ralph C. Sperry in the business formerly conducted as Sperry & Bittner, manufacturers representatives. The name of the company has accordingly been changed to the W. A. Bittner Company, with headquarters at 422 First Avenue, Pittsburgh. Mr. Bittner is president and treasurer of the new company and J. M. Redden is secretary. The same companies as formerly will be represented by the W. A. Bittner Company, and several new salesmen have been added to its staff.

C. A. Felker, who for the past fifteen years has been associated with the electrical supply business in northern Illinois and southern Wisconsin, has become resident representative in that territory for the G-Q Electric Company of Milwaukee, Wis. Mr. Felker will make his headquarters at Rockford, Ill. He is succeeding Fred Wilmarth who has recently resigned from the company.

Alfred Stahel & Sons, Inc., of San Diego, Cal., dealers in electrical appliances and household goods, has recently become merged with the Dohrmann Commercial Company, a California corporation with stores in all principal Pacific Coast cities. The combined companies will operate as Alfred Stahel & Sons, Inc., with headquarters, as formerly, at Sixth and C Streets. A. B. C. Dohrmann will be president of the new organization, Alfred Stahel, Jr., will act as vice president and general manager, and Walter Stahel will remain as assistant to the general manager, while Otto and Roland Stahel will retire from the business entirely.

The Electrical Sales Company of Philadelphia, 1215 Filbert Street, which has recently been established by Fred H. Scarborough, announces that it is the district representative for the Schwarze Electric Company, the E. H. Freeman Electric Company, The Ramey Manufacturing Company, the Trenton Porcelain Company and the Standard Transformer Company.

William A. Moody, formerly associated with the electric range and water heater department of the Pacific Gas & Electric Company, San Jose division, has been appointed factory representative in northern California for the Automatic Electric Heater Company of Warren, Pa. Mr. Moody's headquarters will be located at 63 Second Street, San Francisco.

Employed Salesmen to Create Interest in Detroit's Lighting Demonstrations

From Oct. 25 to Nov. 15 the Electrical Extension Bureau of Detroit put on its Better Business Lighting Display for factories, stores and offices, along lines similar to demonstrations made in other cities. Suitable space was rented in the Hotel Tuller and the necessary wiring and equipment was arranged to demonstrate commercial and industrial lighting.

"We are profiting by the experience of other cities," says H. Shaw, secretary of the Electrical Extension Bureau, with offices at 613 Lincoln Building, "in that we are not relying on newspaper publicity to draw attendance, neither are we relying on direct-mail advertising but are putting ten or more men in the field whose duty it will be to personally solicit the industrial plants, stores, office buildings, etc., for the purpose of getting men in these various places to attend one or more of these displays. The proposition is supported by the electrical jobbers, manufacturers, contractor-dealers and local central station. The demonstrations and lectures will be handled by competent lighting engineers.

"We believe our undertaking will be productive of good results, as Detroit is badly in need of education along commercial and industrial lines and is fortunate at this time in enjoying prosperity."

Edward L. Cox of Cox, Nostrand & Gunnison of Brooklyn, N. Y., has been appointed a committee of one to represent the National Council of Lighting Fixture Manufacturers to work with the Fire Underwriters and the National Fire Protection Association. Mr. Cox succeeds E. L. Murphy of the Luminous Unit Company of St. Louis, who formerly represented the National Council on this committee.

Howard Cole Hakes has recently joined the sales staff of Betts & Betts Corporation of New York City. Mr. Hakes, who will be the company's special sales representative in the State of New York and New York City, was formerly associated with the Charles R. Ablett Company and with the Navy Department, Board of Survey, Appraisal and Sales.

The United Electric Company of Canton, Ohio, manufacturer of stationary and portable electric cleaners, announces the resignation of J. F. Kinder, western sales manager. In future, the company plans to distribute its products direct through its distributers.

The Cutler-Hammer Manufacturing Company of Milwaukee, manufacturer of electric controlling devices, has opened a branch office at Buffalo, N. Y., 358 Ellicott Square, in order to give greater attention to its business in western New York and the Province of Ontario. The new office is opened through the company's New York office, and B. A. Hansen, formerly in the New York office, has been placed in charge.

The Enterprise Electric Company of Cleveland, through A. L. Oppenheimer, proprietor, announces the opening of new quarters in the Vickers Building. The formal opening marks the thirtieth anniversary of the company in the Cleveland electrical field.

R. B. Harvey, formerly with the Westinghouse company and the Litscher Lite Corporation, has been appointed sales manager of the farm light and power division of the Matthews Engineering Company of Sandusky, Ohio. Mr. Harvey has had wide experience in the farm light and power field, covering all phases of the business, from manufacture to sale.

The Westinghouse Electric & Manufacturing Company has opened a new plant in Seattle, Wash., including an assembly and repair shop, a warehouse and a district sales office. All the activities of the company in the Seattle district are now located in one plant, making possible close co-ordination of the sales organization, the service department and warehouses.

The Marks Electric Appliance Company of 3185 South Grand Boulevard, St. Louis, Mo., has been appointed Missouri distributer for the "Easy" and "Geneva" washers and for the "Liberty" vacuum cleaner.

E. L. Kenney, with the Century Electric Company, of St. Louis, has been appointed district sales manager for the company at Rochester, N. Y., with offices at 632 Granite Building.

New Retail Electrical Stores

ALABAMA

Birmingham—Cooper Electric Company, Inc., moved to 2028 Fifth Avenue, North.

CALIFORNIA

Alhambra — Washer Wilson Company, East Main Street.

Anaheim (Orange County)—W. E. Aftnow, erecting new building. Electrical supplies and batteries.

Centerville (Alameda County)—Morgan Electric Company. H. H. Fenneman bought out interest of A. H. Calvert in this business.

Hollywood—August Johnston, 6417 Hollywood Boulevard.

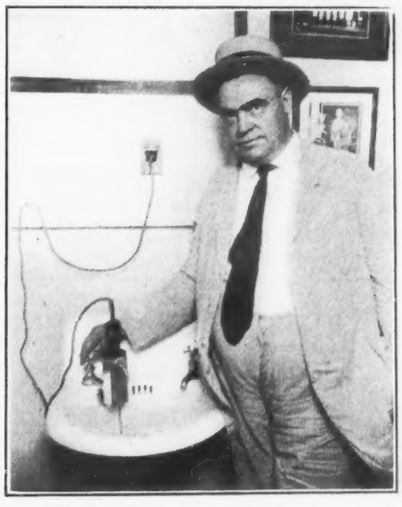
Lakeport—G. L. Slatter.

Long Beach — The Newberry Electric Store, 747 American Avenue. R. G. Chesterton, manager.

Los Angeles — Bungalow Fixture Company, moved to 818-820 South Flower Street.

Oakland—Fred E. Porter, moved to 339 Thirteenth Street.

San Francisco — Ellert & Kellogg, 46 California Street.



If Walter Dilzell doesn't actually go around with this "have-you-a-little-electric-faucet-in-your-home" expression on his face, he ought to. It's a powerful ad, for his faucet, and if it didn't move the photographer to purchase one, we miss our guess. The faucet is the product of the joint labors of Mr. Dilzell and J. C. Sullivan of the Union Electric Company, New Orleans.

Liberty Electric Company, 479 Sutter Street. Charles G. Fries.

Luna Electric Company, 1421 Powell Street. C. B. Luna, proprietor.

The 1900 Washer Company, 71 New Montgomery Street. W. Lee Holmes.

A. F. Wells Company, moved to 155 Second Street.

Stockton — Schlueter Commercial Company, Inc., 721 East Main Street.

Whittier (Los Angeles County)—Stedman-Manson Electric Company, moved to 132 North Greenleaf Avenue.

COLORADO

Denver—Robert A. Heffley, 1516 Curtis Street.

CONNECTICUT

Hartford — Connecticut Electric Instrument Company, 34 Church St. T. L. Goodrich and F. C. Beekley.

Southington (Hartford County) — Harry B. Francis, Center Street.

DELAWARE

Wilmington—Thor Shop, moved to 221 West Eighth Street.

DISTRICT OF COLUMBIA

Washington — H. J. Powers, 811 Ninth Street, N. W.

FLORIDA

Lake Wales (Polk County)—Ridge Electric Shop, moved to Bain Building.

Lakeland (Polk County) — W. H. Jackson, South Kentucky Avenue.

GEORGIA

Macon—M. L. Lessay, 670 Cherry Street.

IDAHO

Sandpoint (Bonner County—J. M. Thompson, successor to E. M. Needs.

ILLINOIS

Chicago—Broadway Cycle-Radio Company, moved to 4734 North Racine Street.

F. Cuphaver, 1504 Morse Avenue.

E. L. Hoffman, 458 East 63d Street.

Kubec Electric Company, 506 West Van Buren Street, opened new store at 623-30 West Jackson Boulevard.

Willy H. Law, moved to 17 East Ohio Street.

Tip-Top Electric Shop, 835 Irving Park Boulevard.

Uptown Electric Shop, 3955 Broadway. Jack Olken, proprietor.

Mendota (LaSalle County) — Henry G. Kohl.

Polo—H. White Electric Company, 103 South Franklin Street. Formerly in business at Milledgeville, Ill.

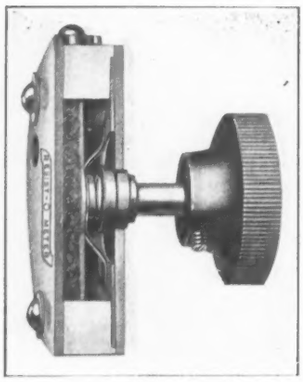
Reynolds (Rock Island County) — Earl Pettit, Russell Olson Building.

Zeigler (Franklin County)—Peerless Electric Company, Birch Street. Dial Pittman, proprietor.

(*Continued on page* 130)

New Merchandise to Sell

(*Continued from third page preceding.*)



Rheostat

Electrical Merchandising, December, 1922

Employing the compression principle, the "Resist-o-Meter," manufactured by the Scholes Radio & Manufacturing Corporation, 32 West Eighteenth Street, New York City, is a new departure in filament rheostats in that adjustments can be made without jumps or steps.

There is no metal frame to produce induction, nor iron to create magnetic action. Response is immediate without hesitancy or lag. The rheostat is the conventional form, and can be mounted on either side of panel, or laboratory bench.

Combination Heater and Cooker

Electrical Merchandising, December, 1922

A small reflecting heater has recently been developed by an English company, which not only may be used for small-scale cooking and boiling, but also has a sliding toaster drawer for toasting bread.

The two heating elements are horizontal, and each has its own switch. The back reflector is of polished aluminum. Over the heating elements may be placed a saucepan or frying pan, and under them the bread is toasted. Or a dish or utensil may be placed on the toaster shelf to keep food warm.

Electric Fires, Ltd., King Street, Norwich, England, is the manufacturer.

Electric Hair Dryer

Electrical Merchandising, December, 1922

Designed for home use as well as for barbers or beauty specialists, the electric hair drier made by the P. A. Geier Company, Cleveland, Ohio, has a special controlling device, which regulates both temperature and strength of the blast. The machine has an attractive appearance, and can be operated with ease.



Power Amplifier

Electrical Merchandising, December, 1922

Utilizing rugged busbar wiring, the one-stage amplifier, manufactured by the Bristol Company, Waterbury, Conn., does not require a C battery to maintain the grid negative. High voltage may be used, being limited only by the tube. The cabinet is made of solid mahogany, highly finished.

Radio 'Phones

Electrical Merchandising, December, 1922

Swedish iron, made especially for electromagnet work, is used in constructing the cores of the "Selco" receiving 'phones, manufactured by the Spies Electric Works, 564 West Van Buren Street, Chicago, Ill. The head bands are made of steel, and are nickel-plated and polished.

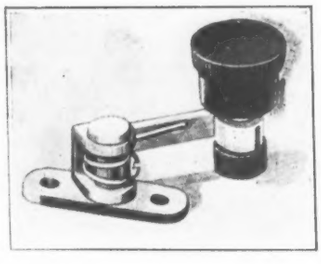
The 'phones have a resistance of 2,500 ohms, and weigh 12 oz.

Immersion Heater

Electrical Merchandising, December, 1922

Operated from an ordinary wall plug or electric light socket, the immersion liquid heater manufactured by the F. & M. Liquid Heater Co., 812 King Street, Wilmington, Del., can be used in hundreds of places, where hot water is needed quickly.

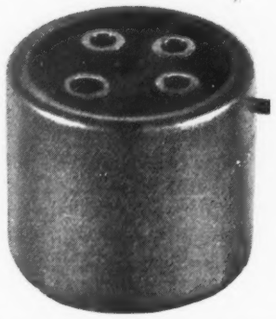
This practical device has a porcelain handle, two-part socket, and attachment cord. The only part of the fixture likely to need replacing is the coil. This can be obtained from the manufacturer at a nominal cost.



Vernier Dial Adjuster

Electrical Merchandising, December, 1922

The vernier dial adjuster manufactured by the Michigan Radio Corporation, Grand Rapids, Mich., has been designed to use in connection with any dial on any type of radio receiving set to secure micrometer adjustment. The necessity of this fine adjustment is readily appreciated by the radio enthusiast who is familiar with tuning in broadcasting stations located at great distances from the receiving set. The spring tension makes the vernier adjuster adaptable to any size dial.



Adapter for Tube Socket

Electrical Merchandising, December, 1922

Through the use of the "Suneco" adapter it is possible to utilize the "Aeriotron WD-11" dry-cell radio vacuum tube in any standard tube socket. The adapter consists of a small cylinder which fits into the socket. It has four prongs at the bottom to engage the contacts of the socket and in the top of the cylinder are four holes in which are placed the prongs of the vacuum tube. The Sun Equipment Company, 67 Exchange Place, New York City, are making the new adapter for which is claimed a minimum dielectric loss and a minimum of induction effects.

Holly-Leaf Light Shades

Electrical Merchandising, December, 1922

New and attractive Christmas decorations for the home or store are the fireproof paper light shades made in the shape of holly leaf clusters, offered by the Hulsizer Company, Des Moines, Iowa. Each shade has eight leaves, and to attach it the bulb is simply unscrewed and then screwed on again under the shade.

Cord Adjuster

Electrical Merchandising, December, 1922

The electric cord adjusters manufactured by the Electric Cord Adjuster Corporation, Lee Building, New York City, are said to entirely eliminate the annoyances caused by the cord on the electric iron, and reduce the hazard of short-circuit and fires. They also protect freshly laundered linens from becoming soiled from the cord that drags about and over the ironing board.

These adjusters, which are adapted for practically every use where a permanent adjustment of an electric cord is desired, are made in three types, the "Champion," "Ideal," and "Telescope."

Loud Speaker

Electrical Merchandising, December, 1922

Made in three models—one with a special loud speaker 'phone, the others to be attached to either one 'phone or two 'phones—the radio horns designed by the Dual Tool Company, 12329 Superior Avenue, Cleveland, Ohio, use a double-tone chamber which gives clear articulation without metallic resonance.

The horns are adjustable as to position, and are made of fiber and hard wood.

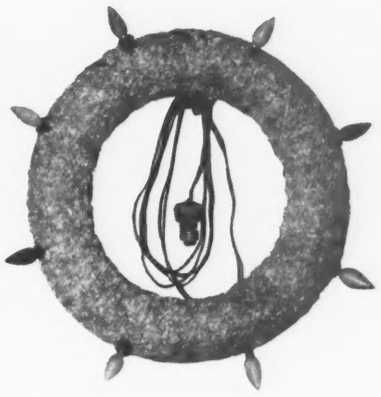


What's new on the market? These pages will tell you.

Lighted Christmas Wreath

Electrical Merchandising, December, 1922

A lighted Christmas wreath with a dozen possible decorative uses in the home and in stores is being offered for the holiday season by the M. Propp Company, 524-528 Broadway, New York City. It may be hung in the window—or on the door—or over the fireplace—or it may crown the Christmas tree. It is not a holly wreath, but is of bright red fiber paper, wired with eight small colored lights, to operate on any current.



Radio Receiving Set

Electrical Merchandising, December, 1922

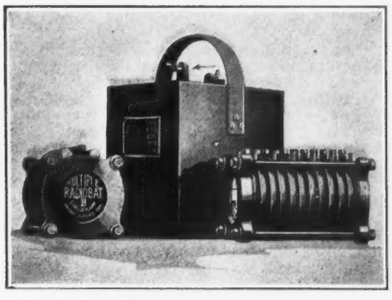
Practically no accessories are required for the "Missouri Jr." one-tube detector set, manufactured by the Missouri Radio Corporation, 2625 Washington Avenue, St. Louis, Mo., as the head set, "B" battery and tube are included in the list price.

The top is hinged, giving access to the interior. "Formica" is used for the front panel.

Radio Batteries

Electrical Merchandising, December, 1922

This illustration shows a group of "A" and "B" storage "Radiobats," manufactured by the Multiple Storage Battery Corp., 350 Madison Avenue, New York City, which incorporate a number of new features of considerable interest to every radio fan. Both "A" and "B" types of these new principle batteries contain a solid electrolyte which makes them absolutely non-spill.



Another interesting feature is the total absence of separators which reduces internal resistance to a minimum. The "Radiobat" grid has a double reinforced construction. This construction adds 25 to 30 per cent more actual metal per square inch. The plate is, consequently, just that much more rugged and does not buckle. This reinforced strength plus the solid electrolyte makes the use of separators unnecessary. Due to the fact, however, that the secondary reinforcing mesh in the grid does not come to the surface of the plate, there is actually more active surface per square inch of plate area. In the case of the "Radiobat" "A", this results in a battery 25 to 30 per cent smaller and, consequently, easier to handle than any other "A" battery of equal rating.

The "B" battery is even more unusual and interesting. It is compact—only 4-in. square by 7-in. long—scarcely larger than a large size dry cell "B." It has no glass jars to break, no liquid to leak. The most notable feature is its utter noiselessness of operation.

Mica Variable Condenser

Electrical Merchandising, December, 1922

Although no thicker than an ordinary dial, the "Dubilier Variadon," declared to be the first practical mica variable condenser, serves the same purpose as an air condenser with several dozen plates.

This Variadon, which is made by the Dubilier Condenser & Radio Corporation, 48-50 West Fourth Street, New York City, makes the use of a vernier unnecessary, and in addition, can be used as a grid-leak condenser.

Condensite Dial

Electrical Merchandising, December, 1922

The new dial made by the Alden-Napier Company, Department S, 52 Willow Street, Springfield, Mass., is made of Condensite, so that, as the manufacturer says, it cannot warp and will run true. It is also one of the few 3-in. dials on which the fingers can be placed on the knob without covering the numerals. The shape of the knob and the placing of the numerals on the bevel have accomplished this end.

Combination Coffee Mill and Meat Chopper

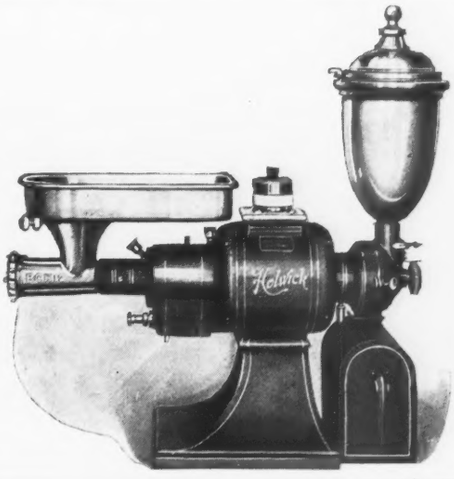
Electrical Merchandising, Dec., 1922

Two operations—the grinding of coffee, and the chopping of meat—can be performed simultaneously from one electric motor on the new unit developed by B. C. Holwick, Canton, Ohio. A cut-off permits the meat chopper to be disengaged when desired.

The double reduction gears operate in oil, which makes the machine practically noiseless, the manufacturer declares.

The burrs, or grinding discs, are machined from plates of manganese high-carbon steel, tempered hard as a file. They cut the coffee instead of crushing it.

Deep syrian red, striped in gold is the standard finish.



Electric Sewing Machine

Electrical Merchandising, December, 1922

The use of aluminum for all heavy parts is the feature of the newest "Singer" sewing machine. No. 101-10. This means that the full-sized arm, equipped with many improvements for speed and convenience, weighs fifteen pounds less than the same machine made of cast iron, and appreciably less than short-arm machines. All working parts are identical with those of the No. 101 cabinet machines.

The Singer Sewing Machine Company, 149 Broadway, New York City, is the manufacturer.

Radio Head Set

Electrical Merchandising, December, 1922

The fine workmanship and the sensitivity of the phones manufactured by Nathaniel Baldwin, Inc., 3474 South 23 D. East Street, Salt Lake City, Utah, permit their attachment to any style horn for loud speaking.

These phones are made in four types as follows: Type C, which weighs 18½ oz.; type E, which has a smaller diaphragm (1¼ in.); type F, weight 14-oz., and type G, which has a special diaphragm.



Toy Electric Kitchen Kit

Electrical Merchandising, December, 1922

Though small in size, the toy electric kitchen kit offered by the Sanitax Electric Company, 145 East Twenty-third Street, New York City, is made for real service, and operates on 110 volts.

The set consists of three pieces—an electric iron, hot plate and pot—all made of aluminum and placed in a box. The "hot plate" is less than 3-in. in diameter, and the other pieces are in proportion.

Variometer

Electrical Merchandising, December, 1922

In addition to supplying such radio parts as 'phones, transformers, variometers, variocouplers, sockets and condensers, the Eisemann Magneto Corporation, Brooklyn, New York, has introduced a new variometer of unique design.

The stator and rotor forms are molded from "Bakelite," and are ribbed for strength. Rotor leads are brought out with stranded conductors and stops limit the movement of the rotor to a maximum of 180 deg.

Loop Aerial

Electrical Merchandising, December, 1922

The many advantages of the loop aerial are now coming into general recognition.

The "Radi-Un Duo" spiral loop, it is claimed, incorporates all the desirable features of this type of aerial. It is small and compact, of exceptionally neat appearance and is designed especially for the most efficient reception of voice and music.

One important feature is the way in which the loop fits into the base on a small brass plug which allows it to be freely rotated or removed from the base entirely, without removing any connections. Three of the four arms are pressed outward by springs which keep the wires taut at all times. The Hudson-Ross Co., 123 West Madison Street, Chicago, Ill., local representatives, declare that distant stations have been heard using this loop with a single tube regenerative circuit.

File these items on 3x5 in. cards every month, to keep your stock index up to date.

New Retail Electrical Stores

(*Continued from page* 127)

INDIANA

Bicknell (Knox County)—Charles Brocksmith.

Connersville (Fayette County)—Lucas & Tingle, Seventh Street and Grand Avenue, successors to Hannah and Lucas.

Fort Wayne — Wayne Radio Company, 1204 Calhoun Street. Clarence P. Cornish bought out interest of L. Slage in this company.

IOWA

Des Moines—Kendall Electric Company, 511 West Seventh Street.

Dyersville (Dubuque County)—Albert J. Loecke, East Main Street, successor to James W. Turley.

Holstein (Ida County) — Ewoldt & Lohafer, successors to Henry Ewoldt Electric Shop. Moved to new location.

KANSAS

Augusta (Butler County)—Stone-Harrington Electric Company.

Winfield (Cowley County)—Stuber Bros., 9th and Millington Streets. Erecting new building on Main Street, between 11th and 12th, ready for occupancy April 1, 1923.

Woodbine (Dickinson County) — C. O. Fengel, successor to E. J. Brown.

LOUISIANA

Leesville—Albert Kopotsy has added electrical department to his plumbing and heating business.

MAINE

Canton (Oxford County) — George R. Willis.

MASSACHUSETTS

Boston—Haymarket Electric Supply Company, 63 Merrimac Street. Samuel Coles and Ralph Pill.

Union Electric Company, 6 Long Wharf. Thomas R. McHugh.

Arvedon Brothers, Inc. Harry Arvedon, 82 Portland Street and others.

Greenfield—Streeter Electric Company will move to Hovey Building.

Lawrence—Kepman Electric Company, moved to 210 Broadway.

Leominster—L. A. McCarthy, Electrical contractor, and The Electric Shop have moved their business to 67 Main St.

Malden—Henry Wischhusen, moved to 11 Dartmouth Street.

New Bedford—Weld Square Radio Shop, 46 Weld Square. Frank S. Sousa and R. M. Russell.

Newton Centre — Edison Electric Illuminating Company, leased store at 1253 Centre Street.

Somerville — Dana Quinn, 284 Highland Avenue.

MICHIGAN

Clawson (Oakland County) — Clawson Electric Supply Company, Fred Price and Arthur Good, proprietors.

Detroit—Realstuff Radio Company, 8815 Lane Avenue.

Marshall (Calhoun County) — Fred J. Smith Electric Company, 204 West State Street.

Monroe — Harry Roggelien, West Front and Cass Streets.

Sandusky (Sanilac County) — Frank Manary and Frank Conlin.

MINNESOTA

Aitkin—F. W. Sleeper and E. W. Richards, successors to E. W. Richards.

Lake Crystal (Blue Earth County)—Lake Crystal Electric Company, Tenney & Alward, proprietors, successors to Norman & Brederson.

MISSISSIPPI

Coffeeville (Yalobusha County) — Freed Electric Shop, Front Street.

MISSOURI

Carthage—Empire District Electric Company, moved to East Fourth and Howard Streets.

Hamilton (Caldwell County)—I. E. Harper, Clark Building.

Marcelina (Linn County)—The Electric Shop, N. R. De Young, proprietor, North Kansas Avenue.

St. Louis—Benson Radio Company, Alfred J. Strobans, Title Guaranty Building and others.

H. E. Jones Electric Company, H. E. Jones, president, J. A. Dowdall, secretary. 802 Chestnut Street. (Incorrectly listed in October "New Stores" column. Foregoing is correct information.) Also in business at 26 East Seventh Street, Kansas City, Mo., and company contemplates opening up additional stores as soon as possible.

Simon Supply Company, 520 Pine Street.

Shelbyville (Shelby County) — George Mason.

Union (Franklin County)—Union Electric Company, Jennings Building.

NEBRASKA

Lincoln — Universal Electric Company, 1316 N Street, L. A. and A. B. Gerstenberger, proprietors.

NEW JERSEY

Atlantic City—Gruen Electrical Company, moved to 44 North Massachusetts Avenue.

Guarantee Electric Company, Inc., 1428 Atlantic Avenue. Old concern, recently incorporated.

David Park, moved to 603 Atlantic Avenue.

Hackensack — Kraemer's Variety Store, 88 Main Street.

Jersey City—Guarantee Sales & Service Company, 644 Newark Ave.

Newark — Ampere Electric Corporation. Incorporators, William V. Rafferty, 810 Broad St., and others.

Trenton — Tab Electric Company, 447 South Broad Street. Thomas A. Brown, proprietor.

NEW YORK

Brooklyn — Brooklyn Edison Company, moved to 5119-5123 Fourth Avenue.

M. D. Reddock & Company, 225 Flatbush Avenue. Lighting fixtures.

Buffalo — Jaworsky Electrical Company, 1499 Broadway. Old concern, recently incorporated.

F. J. Learman, moved to 1454 Main Street.

North Park Electric Shop. Old concern, recently incorporated.

Carthage—Virkler & Thompson, successors to Castle & Virkler.

Jamaica (Long Island)—Scientific Radio Company, moved to 6 Bergen Avenue.

New York City—Betsy Ross Lamp & Novelty Shop, 335 East Fordham Road. Lighting fixtures.

M. & G. Electric Company, moved to 1105 Lexington Avenue.

Rochester—S. O. S. Radio Corporation. Radio equipment.

Silver Creek — Lafayette Electric Company, Park Place. E. G. Weinheimer bought out interest of C. M. Arnold.

NORTH CAROLINA

Hendersonville—Spears Electric Company, moved to larger quarters. H. P. Spears, proprietor.

Statesville—Electric Supply Company.

Wilmington—Blake-Brown Company, 129 Princess Street. Consolidation of electrical business of J. Blake and Brown Hardware Company.

NORTH DAKOTA

Selfridge (Sioux County)—H. G. Schoonover.

OHIO

Ashtabula—J. R. Davis & Company, 5 East Fisk Street, successor to E. M. Burroughs.

Cleveland — Litewell Fixture Company, 2011 Euclid Avenue.

Merrill Electric Company, 1214 Prospect Avenue. Successor to Merrill Sharp Electric Company.

Progress Electric Company, moved to 6103 Broadway.

Columbus—Globe Electric Company, 226 East Long Street.

C. S. Hard Electric Company, 592 North High Street.

Indestructo Trunk Company, 73 South High Street. Electrical appliances, trunks and bags.

Greenville—(Darke County)—Greenville Heating & Electric Company, 133 East Third Street, C. O. Niswonger and J. M. Stocker, proprietors.

Lorain—R. & B. Supply Company, 663 Broadway.

New Philadelphia — The Electric Shop, East High Street, Karl R. Miller and Charles E. Cummings, proprietors, successors to John C. Thomas & Son.

Portsmouth—William Licht, remodeling and improving quarters on Grant Street.

OKLAHOMA

Muskogee—Muskogee Electric Company, Inc., new quarters at 429 West Broadway. M. A. Screechfield and Fred M. Hamilton, successors to H. K. Herbst and H. H. Stuere.

OREGON

Portland — Edison Electric Appliance Company, Inc., 412½ Stark Street, S. G. Stuart, proprietor.

English Company, 148 Fifth Avenue. Old concern, recently incorporated.

Seaside (Clatsop County) — Williams Brothers, Gilbert Building.

PENNSYLVANIA

Kutztown (Berks County) — H. D. Springer.

Nanty-Glo (Cambria County) — The Jackson Light, Heat and Power Company, Roberts Street. S. H. Zimmerman, local representative.

Philadelphia — Centennial Lighting Fixture Corporation. Incorporators, Joseph Kalter, 1621 Ridge Avenue and others.

Pittsburgh—Allied Electric Supply Company, 715 Liberty Avenue, bought out United Electric Supply Company, 639 Smithfield Street.

Shamokin — The Pennsylvania Power & Light Company, new quarters in Shamokin Street, near Sunbury Street.

Wilkes-Barre — Keystone Electric Company, 24 Public Square. Incorporators, Frank G. and John E. Roche and Thomas Malone.

RHODE ISLAND

Providence—Atlas Electric Shop, 733 Eddy Street. Noah Semenoff and Herbert F. Nelson, proprietors.

Carpenter Electric Company, Inc., 37 Weybosset Street. Old concern, recently reorganized.

Cleartone Radio Supply Company, 5 Laura Street. Albert E. Proffitt, proprietor.

TENNESSEE

Chattanooga—Chattanooga Electric Company, adding radio department to electric business.

Memphis—Creedle & Fisher, 196 McLemore Avenue.

Carl F. Duck, 264 Madison Avenue.

Joseph Fowler Electric Company, moved to 118 Monroe Avenue.

Viaduct Electric Company, Treecle & Fisher, proprietors, 355 La Clede Avenue.

Wright Electric Company, 222 South Main Street.

North Nashville — Electric Fixture & Radio Corporation, 234 Sixth Avenue. Incorporators: A. F. Anderson, Tom C. Sharp and E. M. Hudgins.

TEXAS

Glen Rose (Somervell County)—W. N. Carter.

Luling (Caldwell County) — C. Zedler, moved to new location.

San Antonio—Crowther Electric Company, 310 Main Avenue. Successor to Phillipps & Crowther.

VERMONT

Bradford—Sisco & Judd.

Fair Haven (Rutland County)—Roberts & Lancaster.

VIRGINIA

Norfolk—Smith-Miller Company, Inc. J. H. Smith, president, W. R. Miller, secretary and L. H. Milby.

WASHINGTON

Seattle—Stanley S. Hart, Masonic Building, Green Lake Station.

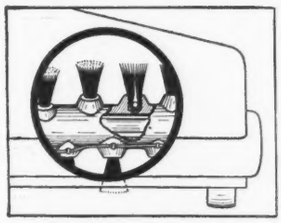
Yakima—Inland Electric Company, Ross Deegan, proprietor, successor to Haskins & Deegan.

WEST VIRGINIA

Clarksburg — W. Nausbaum, 609 West Pike Street. Bought out the Simmons-Clemans Company.

Elkins—C. H. Kerner & Co., 114 Third St. Bought out Home Light & Power Co.

$111,605 Worth of Hoovers Sold in Two Years in a City of 66,083 People



The Brush Bristles Do Not Come Out

(Another Patented Hoover Feature)

IN the Hoover Beating-Sweeping Brush, each of its twenty-four spirally arranged, soft hair tufts is prevented from loosening or falling out. This aids materially in maintaining the efficiency of The Hoover. It is accomplished by lacing or drawing each separate tuft of bristles securely into place in the brush by means of a loop made in a continuous wire which successively fastens the other tufts. This simple construction also makes it easy, at the factory, to re-bristle a worn brush and thereby save money for the user. Covered by a Hoover patent granted Nov. 19, 1912. More than fifty patents now protect The Hoover. Other applications for patents, pending.

During the last four years, The Hoover has been placed in better than one-fifth of the 12,000 wired homes in Terre Haute, Indiana, through the aggressive sales and advertising efforts of the Terre Haute, Indianapolis & Eastern Traction Company.

In 1919 this Authorized Hoover Dealer sold 347 Hoovers; in 1920, 866 Hoovers; in 1921, 839 Hoovers; this year it is expected that all previous records will be broken.

Sales in dollars, for 1920 and 1921, totaled $111,605. The average stock investment was only $1,500! Consider therefore the turnover, and the size of the return on the investment!

Such an achievement is made possible by the combination of the Hoover Co-operative Plan which has been in force there since August, 1919, and the splendid merchandising co-operation offered by the T. H. I. & E. Traction Company.

Three Hoover sales campaigns a year are conducted in Terre Haute. A demonstration table is placed adjacent to the cashier's cage in the store. Hoover window displays are regularly installed. Local newspaper space is liberally used to feature The Hoover.

Street car cards and posters, and a Hoover advertisement on the backs of light bills or stuffers enclosed with the bills, are among the other forms of publicity employed.

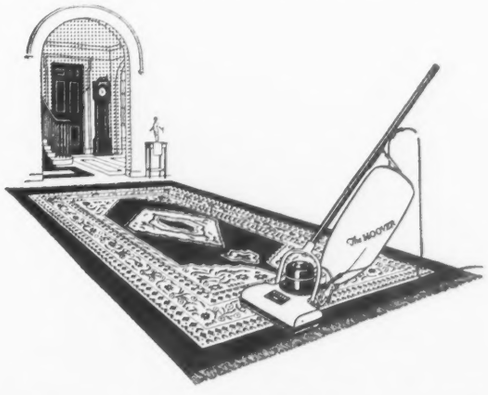
The possibilities that exist in your community to sell Hoovers are revealed by this example. For Terre Haute possesses no advantages that are not also present in your locality, in proportion to its size.

Become an Authorized Hoover Dealer in 1923. A tremendous increase in our advertising campaign is but one of many attractive features. Send for our representative.

THE HOOVER SUCTION SWEEPER COMPANY, NORTH CANTON, OHIO

The oldest and largest makers of electric cleaners

The Hoover is also made in Canada, at Hamilton, Ontario



The HOOVER

It BEATS.... as it Sweeps as it Cleans



Kawneer
SOLID COPPER
STORE FRONTS

REMODELING Old Buildings into Modern Sales Emporiums is quite easily accomplished by installing Kawneer Solid Copper Store Fronts. The above shows but one of thousands of cases in which a Kawneer Front has worked a wonderful transformation. More than 150,000 merchants are now doing business behind Successful Kawneer Fronts.

If you plan to build or remodel your store you should have a copy of our New Book of Store Front Designs. Pin the coupon to your letterhead and mail it today before you forget.

The Kawneer Company
1404 Front Street
NILES, MICHIGAN

Please send me Book of Store Front Designs and Full Particulars About Kawneer Store Fronts.

Name .....

Address .....

THE Kawneer COMPANY
1404 Front Street
NILES MICH.

Use Me to get ORDERS



Here's How I helped land ONE big Order!

I'm a package outfit of Scoopettes, complete with all fittings *and* wire ready for you to light *any* show case

Here's how I helped one dealer:

1. While the prospect was "*hot*" his jobber delivered a package outfit of Scoopettes from stock. It was complete with all necessary parts. All he had to do was to install it in one case to demonstrate Scoopette show case lighting to the merchant in his own store.

2. Scoopettes lighted this case better than any the merchant had ever seen and the cost of lighting his regular 8-foot case with Scoopettes *was less* than any other equipment he had ever used—*only 5 cents per 8-hour day.*

3. When we compare the cost of lighting all cases with Scoopettes it was easy to get the big order for his 256 cases. Did we take our time then? No—we started installing more standard package Scoopette outfits right then. Is he satisfied? I'll say he is!!

SCOOPETTES

Use Standard 15 or 25-watt

Round G-18½

(medium screw base) Lamps

—

Each Package

is a complete Outfit and includes all parts necessary to completely wire one case, i. e., Scoopette units, T-fittings, elbows, tubing, insulating joint, and wire.

NO OTHER PARTS NEEDED

Any wonder he is sold on Scoopettes in complete package outfits? *No delay* when the prospect is interested. *No delay* installing 'em—and best of all—*Scoopettes light any show case better and cheaper because each "Scoopette" is a powerful silver mirrored X-Ray Reflector!!!*

Sell yourself on Scoopettes so you can sell others! Read our bulletin "How to Sell Show Case Lighting!!"

National X-Ray Reflector Co.

New York
31 W. 46th STREET

CHICAGO
239 W. JACKSON BLVD.

Los Angeles
PACIFIC FINANCE BLDG.

The Latest SWEEPER-VAC Great Invention



Something new—a marvelous sales-getter. Thousands of SWEEPER-VAC sales have been made because of this remarkably efficient new

Electric VAC-MOP

the only device for cleaning tile, linoleum or hardwood floors is now ready for SWEEPER-VAC dealers. Never before was there anything but crude unsanitary tools for doing this all important work. Now with this ingenious VAC-MOP you can feel the bite and pull of the suction as the VAC-MOP cleans and polishes the floors and best of all it cleans itself at the same time since all dirt is sucked up into the non-spill dust bag.



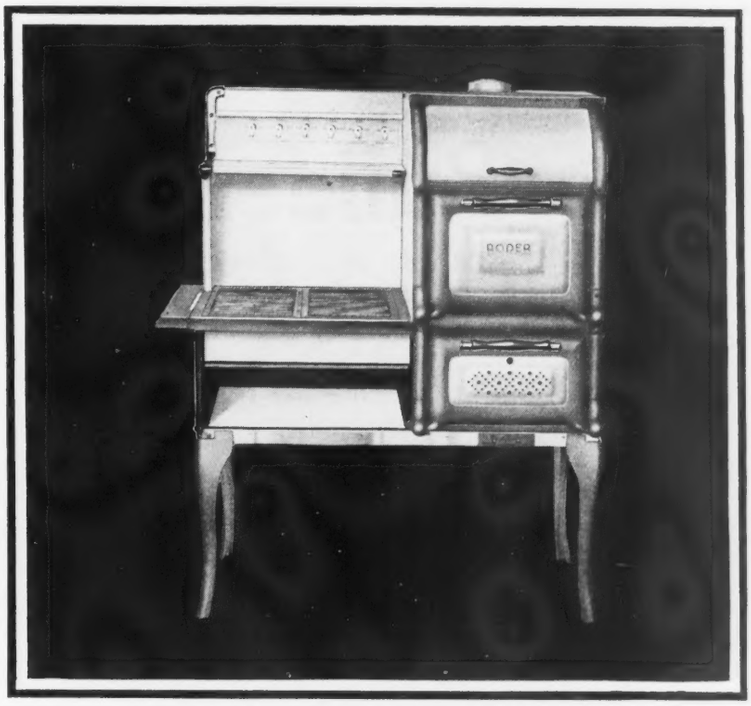
Increase Your Sales from 50% to 900%

Many dealers have done this. National advertisements like that shown here appearing in the Saturday Evening Post, Ladies Home Journal and Good Housekeeping will quickly spread the news of this wonderful invention all over the country.

Every woman will want a VAC-MOP. To get one she must buy a SWEEPER-VAC. A Sweeper-Vac Invention, it is possible to use the VAC-MOP only with the famous, easy gliding, deep cleaning, two-in-one electric SWEEPER-VAC.

Special newspaper ads, a new direct mail series and giant ads for your windows are all ready to help SWEEPER-VAC dealers clean up with the VAC-MOP. Strike while the product is new. Write for sale bulletin No. 6 giving final details how to run a successful VAC-MOP sale. ***Get it today and put the Sale With A Punch on at once.***

PNEUVAC CO., Worcester, Mass.



Roper Electric No. 2001 R.M.M.A.
Right or Left-Hand Oven

IF you could offer your customers an electric range that would compare in economy of operation with other methods of cooking; if you could conscientiously recommend this range to a customer of moderate means, knowing that there would be no high bills to cause his dissatisfaction; if you knew that the service required on this range would be negligible; if you knew it was practical from an economy and efficiency basis for over 90% of your customers—

HOW many more sales do you think you could make? How much more current would you sell?

YOU know that such a range would revolutionize your business. It would make a range sale common instead of an exceptional happening. It would offer the greatest field for sales extension since the perfection of the electric light.

NEW applications of a natural law has made such a range possible —the direct conduction of black heat instead of radiation of red heat. Because of direct heat contact, the current demand is only 2/3 that of other ranges and the time of operation is shorter, thus making the difference between high operating cost and real economy. These are facts you can't afford to overlook. Write for catalog and we will show how you can prove our statements.

GEO. D. ROPER CORPORATION, Rockford, Ill.

Pacific Coast Branch: C. B. Babcock Co., Mgrs., 768 Mission Street, San Francisco, Calif.

ROPER

TRADE MARK
REG. U.S. PAT. OFF. REG. IN CANADA

BE SURE THE ROPER PURPLE LINE IS ON THE ELECTRIC RANGE YOU SELL

Two Builders and Their Product



ALBERT HAAG



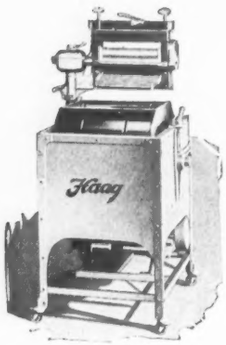
GEORGE HAAG

Haag Bros. Co., for 12 years, have forged ahead with a rapidity that has been the wonder of the entire washing machine industry.

But the growth of their factory, the popularity of their product, while marvelous, is but the natural reward due such a service as these men have rendered to the American housewife.

The Haag brothers—George and Albert—have not been pencil and drawing board designers; they have never visioned Haag washers from a desk in a private office.

The ideals they have fostered for finer washers have been planned when dressed in overalls. These men are not afraid of grease and dirt; patterns for every new machine have been formed by their own hands and when finished they, personally, make these washers pass tests and continuous day and night runs that no washer would ever have to face in a lifetime's service.



New Haag Oscillator

beyond any shadow of doubt is the finest Oscillating washer ever built. It is the best washer Haag Bros. Co. can build.

Tube of fine copper, tinned inside; height of washer, 35 inches; floor space, 22½ by 26 inches; strong angle iron frame; rust-resisting steel cabinet; large casters; over-size direct-drive motor; machine-cut spur gears; swinging, reversible, 12-inch wringer locks in five positions; brass threaded drain spout; silver-grey enamel finish. Quiet-running, attractive, compact.

As it has done for others the Haag Oscillator will build friends, business and profits for you. ***Write for prices, descriptive literature and territory.***

HAAG BROS. CO.

Peoria **Illinois**

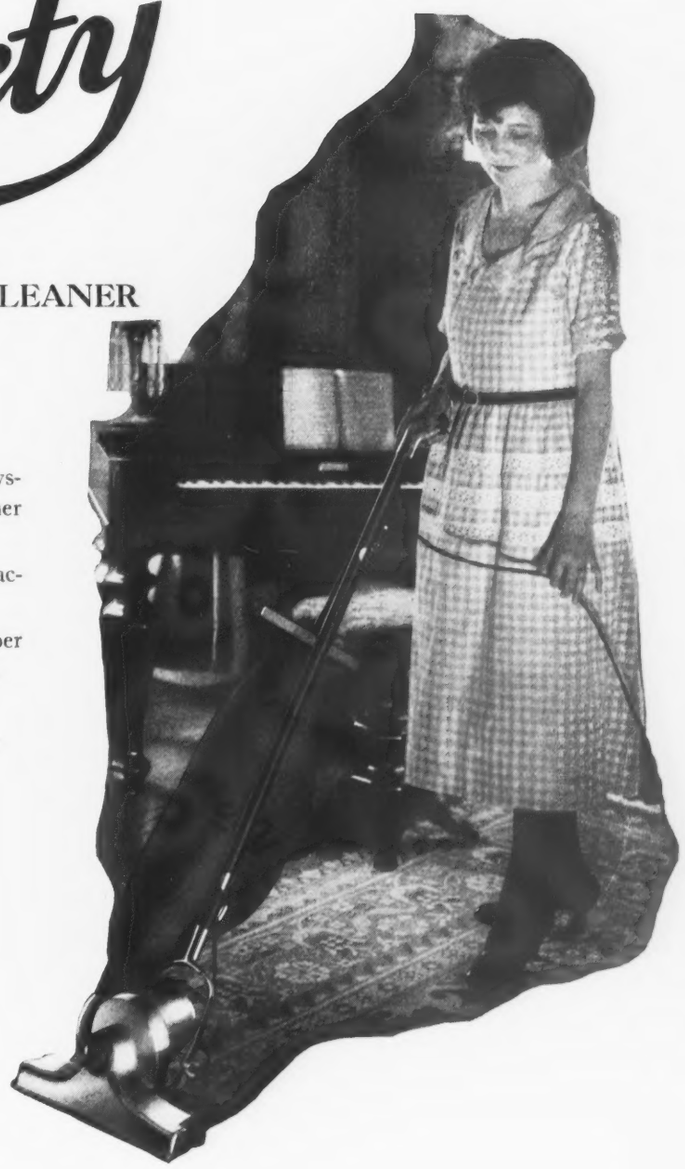
In addition to the Haag Oscillator, the COMPLETE Haag Line includes Haag "Cabinet" (cylinder), "Blue Ribbon," "New Way," "Twin Tub" dolly types, electric and belt power. Write for literature.



PROFITS!

Liberty

ELECTRIC VACUUM CLEANER



Outstanding Sales Advantages:

1. Agency territory may be had.
2. An advertising allowance for local newspaper advertising is given with every cleaner purchased.
3. The cleaner carries an exceptionally attractive dealer's profit.
4. The dealer may discount his time paper through our finance company if he desires.

Outstanding Mechanical Advantages:

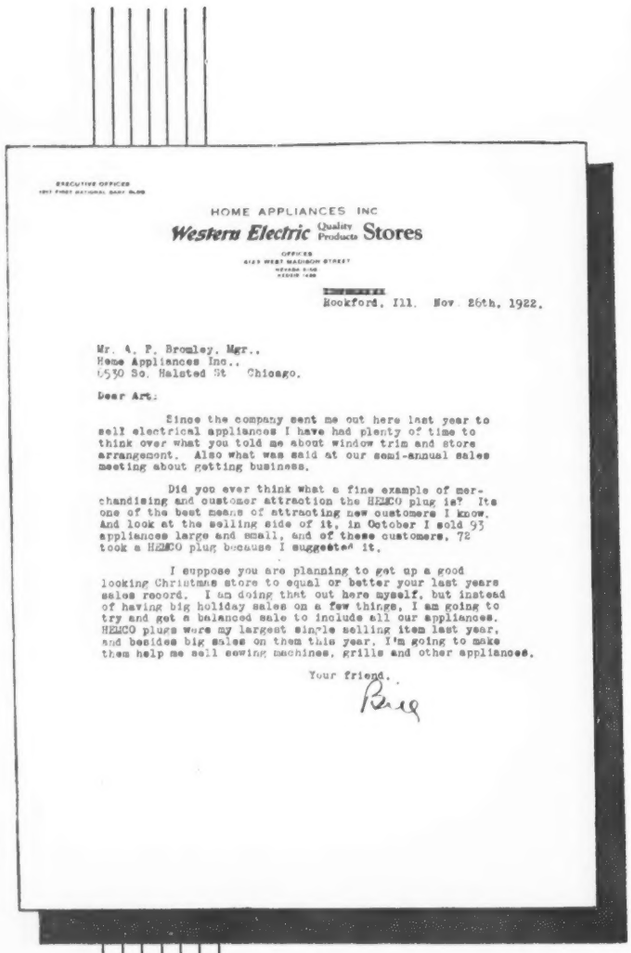
1. Special traction-driven nozzle brush
2. Wide cleaning nozzle.
3. Exceptionally strong suction.
4. Low clearance.
5. Simple and positive nozzle adjustment.
6. Air-cooled motor—G. E. design.

These sales and mechanical advantages are the primary reasons for the LIBERTY'S increasing popularity.

Write to Sales Department for territory still open and we will have a representative call to see you.

Address Department L.

ELECTRIC VACUUM CLEANER COMPANY
CLEVELAND, OHIO



HOME APPLIANCES INC
Western Electric Quality Products Stores

Rockford, Ill. Nov. 26th, 1922.

Mr. A. F. Bromley, Mgr.,
Home Appliances Inc.,
6530 So. Halsted St Chicago.

Dear Art:

Since the company sent me out here last year to sell electrical appliances I have had plenty of time to think over what you told me about window trim and store arrangement. Also what was said at our semi-annual sales meeting about getting business.

Did you ever think what a fine example of merchandising and customer attraction the HEMCO plug is? Its one of the best means of attracting new customers I know. And look at the selling side of it, in October I sold 93 appliances large and small, and of these customers, 72 took a HEMCO plug because I suggested it.

I suppose you are planning to get up a good looking Christmas store to equal or better your last years sales record. I am doing that out here myself, but instead of having big holiday sales on a few things, I am going to try and get a balanced sale to include all our appliances. HEMCO plugs were my largest single selling item last year, and besides big sales on them this year, I'm going to make them help me sell sewing machines, grills and other appliances.

Your friend.

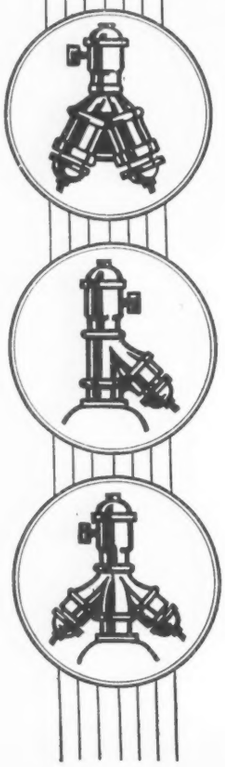
What HEMCO Dealers Are Saying About HEMCO Plural Plugs

"HEMCO Plugs were our fastest selling line last year"—that has been the comment of many HEMCO dealers who are looking forward to featuring these plugs again this year during the Holiday Season.

Read the letter reproduced herewith. HEMCO plugs, pushed independently and also sold with appliances, mean quick turnovers. They are making splendid profits for thousands of electrical dealers. We are sure you can feature them this year to fine advantage.

15 Reasons Why HEMCO Plugs Are Superior

1. They are made of condensite.
2. Are molded in one piece.
3. Are not damaged by moisture.
4. Are not softened by gas filled lamps.
5. Withstand accidental jerks and pulls.
6. Will not crush by accidental blows.
7. Are made with full shell and spring center contacts.
8. Are first in attractiveness.
9. Will not come apart or short circuit.
10. Do not break when dropped.
11. Will last indefinitely.
12. Are approved by the board of fire underwriters.
13. Their quality is protected by HEMCO patents.
14. Every HEMCO plug is factory tested.
15. Every plug is Guaranteed Mechanically and Electrically Perfect.





HEMCO Health Pad

A new Electric Heating Pad that is extremely soft, flexible and comforting when applied to the body. Gives low, medium or high temperatures as desired. Lists at $8.00, and will prove a leader in sales. Now ready for delivery, write for discounts.

¶ Mats or stereotypes for Christmas ads and window display helps furnished free on request. Ask for our Standard Package of Selling Helps.

GEORGE RICHARDS & COMPANY

Dept. 10, 557 W. Monroe St., CHICAGO

New York Office: Nelson and Mount Sts., Long Island City, N. Y.

Pacific Coast Agents: Geo. A. Gray Co., San Francisco and Los Angeles, Calif.

New England Agents: Pettingell-Andrews Co., Boston, Mass.

Export Dept.: George Richards & Co., 557 W. Monroe St., Chicago, Ill.

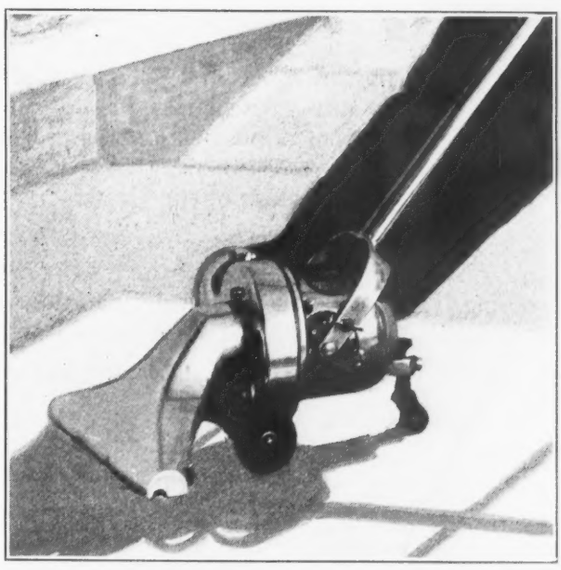
SUNSHINE
Electric Cleaner

Make Your Electric Cleaner Department Permanent and Profitable

THERE is a greater profit to the dealer in merchandising Sunshine, than in any other Cleaner in its class. Because of its rapid turnover and more-profit-per-sale, the majority of dealers who sell the Sunshine Electric Cleaner have now established permanent and profitable Electric Cleaner Departments. Our Finance Plan enables the dealer to sell on the Easy Payment Plan, and really make more money than on a cash transaction.

Your customers will be attracted and interested by the Sunshine Electric Cleaner because of its simple construction and satisfactory performance. Demonstrations are convincingly made—resulting in volume sales for the Sunshine Dealer. Sunshine satisfaction spreads rapidly into increased Sunshine Sales and Sunshine profits. Here, then, is a product that merits your endorsement, one that insures rapid turnover, large profits and satisfied customers. It is "another Wise-McClung product" and its maker tells the world that: "You Ought To See It Clean!"

If you are interested in a permanent and profitable Electric Cleaner Department, write to your jobber or to us TODAY for further information.



"You Ought To See It Clean"

A Product of the Wise-McClung Manufacturing Co.

"Its Guarantee of Quality"

Sunshine Sales Company
400 Seventh St.-New Philadelphia, O.



One Dealer Orders 1150 EUREKAS

for the Great Christmas Drive!



Late in October the Narragansett Electric Lighting Company, of Providence, R. I. prepared to close their largest Eureka year since they obtained the agency in 1915, by sending us their largest single order. It called for 1150 Eurekas—all intended for strictly retail sale in Providence during the Eureka Christmas campaign.

Packed to the roof with 950 Eurekas, the freight car shown above left our plant October 27th, the balance of the order being shipped shortly thereafter.

Few people recognize the significance of this remarkable order. In Providence, with its population of less than 238,000, there were at the time almost 10,000 Eurekas in use. Recognizing the tremendous sales possibilities during the great Christmas campaign, the Narragansett Electric Lighting Company ordered 1150 more of the Grand Prize cleaners.

This, we feel, is a noteworthy example of the success achieved by Eureka dealers who follow the Eureka method of intensive selling. Dealers who have not yet had the Eureka agency plan presented to them should write immediately for information.

Eureka Gets the Dirt—Not the Carpet

EUREKA VACUUM CLEANER COMPANY, DETROIT, U. S. A.

Makers of Eureka Vacuum Cleaners since 1911

Canadian Factory, Kitchner, Ontario. Foreign Branch: 8 Fisher Street, Holborn; London: W. C. 1, England (68)

EUREKA

VACUUM CLEANER



"When you buy, just look for this trade-mark. That's what I was told to do and wash-day has been play-day ever since I found it."

Why Women Trust This Trade-Mark

FEATURES

Full cabinet type; flat table top; removable cover; large, easy rolling casters; sanitary self-cleaning cylinder (wood or zinc); heavy, galvanized steel frame and rust-resisting steel sides; ¼ H. P. motor; removable, full-swing metal wringer; positive roll release; instant resetting of rolls.

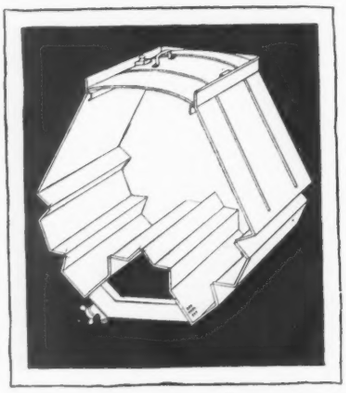
Meadow Lark

HOW much easier it is to sell women what they want! Meadows Dealers know. For women have confidence in the Meadow Lark—they trust it. And they tell their neighbors about it — that's the great thing about Meadows Washers. Wherever they go they make new friends—and more sales for dealers.

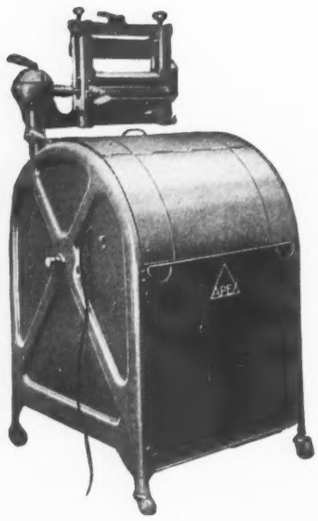
What is it worth to you to know that the machines you sell will keep every promise you make? Meadows will. Because they're built out of honest materials and workmanship. Built to wash clothes clean, without injury. That's what women want. That's why it will pay you to become a Meadows Dealer.

We don't expect these few words to convince you. All we ask now is your request for the complete Meadows story. Don't let a penny post-card keep it from you. Get one now, sign your name and address, but be sure to *mail* it.

THE MEADOWS MANUFACTURING CO., Bloomington, Ill.



Why sell second choice when you can SELL the APEX?





The patent records in Washington show you what washer to sell. They show that the APEX leads the list of oscillating type machines—it is the *first* with this most modern type of tub design.

What does this prove? Simply this. The APEX tub was built for greatest washing action—unhampered by any previous patents in attaining the perfect mechanical design for making clothes clean. The correctness of the APEX tub is today the basis of APEX leadership. Why not sell the leader? Write us for the Apex dealer proposition—now.

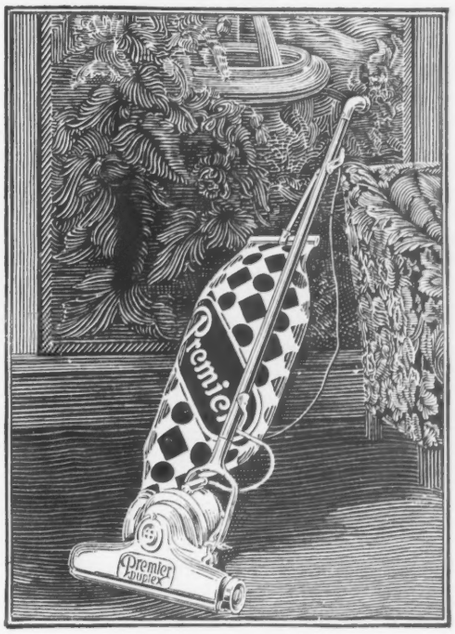
APEX APPLIANCE COMPANY
3223-3261 W. 30th St., *Chicago, Illinois*

APEX

MODEL DUPLEX

of

The Premier
FIRST AMONG CLEANERS



Model Duplex of The Premier

The cleaner that is selling itself - sensationally — by demonstration — without sales argument

Write to the Sales Department for the Advertising and Sales Plan which has given Model Duplex of the Premier an amazing sales record.

ELECTRIC VACUUM CLEANER COMPANY, Cleveland, Ohio
Manufactured and Distributed in Canada by
The Canadian General Electric Co., Ltd., Toronto, Ont., and Branches

WESTERN UNION TELEGRAM

NEWCOMB CARLTON, PRESIDENT GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

_____

_____

Express_____Bee-Vacs and attachments as per special Christmas offer.

Signed_____

Tear out this telegram and send to your jobber Now!

Wire for One or More

You may send them back if they fail to sell by Christmas Day!



Here's our proposition in a nutshell. Wire your jobber for one or more *Bee-Vac Electric Cleaners,* complete with attachments. He'll send them to you with the distinct understanding that they may be returned for credit if they fail to sell by Christmas Day.

Take advantage of this liberal offer and make some easy money this Christmas. At the new low price of only $39.75, the widely-advertised Bee-Vac will sell like hot cakes and pay you a whacking big profit. Don't delay! Get your wire off today—NOW!

BIRTMAN ELECTRIC COMPANY

Dept. C-12, Lake and Desplaines Sts., Chicago

NOW

$39.75

"Why Pay More?"

BEE-VAC

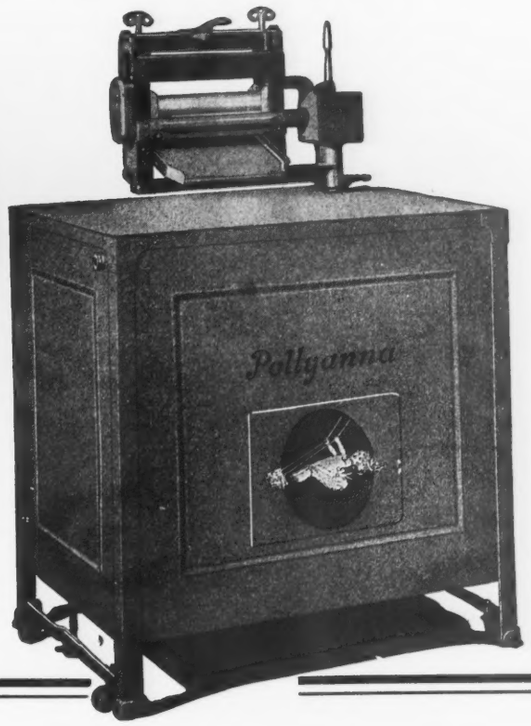
ELECTRIC CLEANER

"Many will be given for Christmas"

Generous Margin of Profit

-Quick Turnover

No Service Expense



With All These Features:

Copper Tub heavily tinned inside.

Swinging Wringer the very finest made.

Double Whirlpool Agitation forces suds thru clothes **100 times a minute.**

Standard Capacity handles the biggest washing.

Beautiful Cabinet extra strong and durable.

Finest Motor the best that money can buy.

Dimensions: length, 34 inches width, 23 inches, height, 35 inches wt., crated, 280 lbs.

A Money-Maker for Dealers

The Pollyanna Electric Washer will make money for you.

First—This full-sized, standard washer provides the dealer with a handsome margin of profit.

Second—Not only is the dealer's profit good, but the machine is a marvel of simplicity in operation and economy of construction—therefore priced low. Operation, construction and price make sales easily and quickly.

Third—Being simple, sturdy and substantial, the Pollyanna Electric Washer does *not* run up any service costs for the dealer. There's nothing to get out of order. All parts are strong and readily accessible and interchangeable. No hair-line adjustments needed.

See for Yourself!

The portfolio we will send you on request supplies full details of construction, showing all features responsible for your profit. Also includes complete *Pollyanna Dealers' Selling Plan.* Write for it now while you think of it.

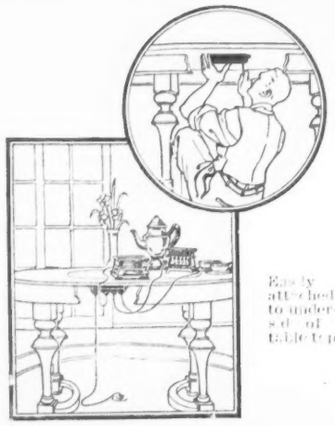
THE ALMETAL MANUFACTURING CO.
7229 Manchester Ave., St. Louis, Mo.

Pollyanna

The **Electric Washer with the Swinging Tub**

HUBBELL

Actually "Sells on Sight"



Easily attached to underside of table top.

Here is a "last minute" Christmas gift of all-year-round saleability, that *actually sells on sight.* It safely provides *three* universal Te-Slot Current Outlets when connected with any Edison Base Receptacle or Convenience Outlet.

HUBBELL
Triplex Table-Tap (6900)

is *new* and *unique.* With it your customers can wire their own furniture. It may be permanently attached to the underside of a table top, or to a wall surface; or used as a portable device. Its excellent design and beautiful finish make it suitable for any surroundings. It is backed with green baise and will not scratch the finest surface.

Sell Hubbell Triplex Table-Taps: each one increases the market for electrical appliances by making it easy and convenient to use them.

Write today for Circulars and Bulletin

Just off the presses—a new and beautiful circular, which can carry your imprint into the homes of your customers. How many could you use?

HARVEY HUBBELL INC
ELECTRICAL SPECIALTIES
BRIDGEPORT HUBBELL CONN. U.S.A.



Attached to kitchen wall will operate 3 appliances.

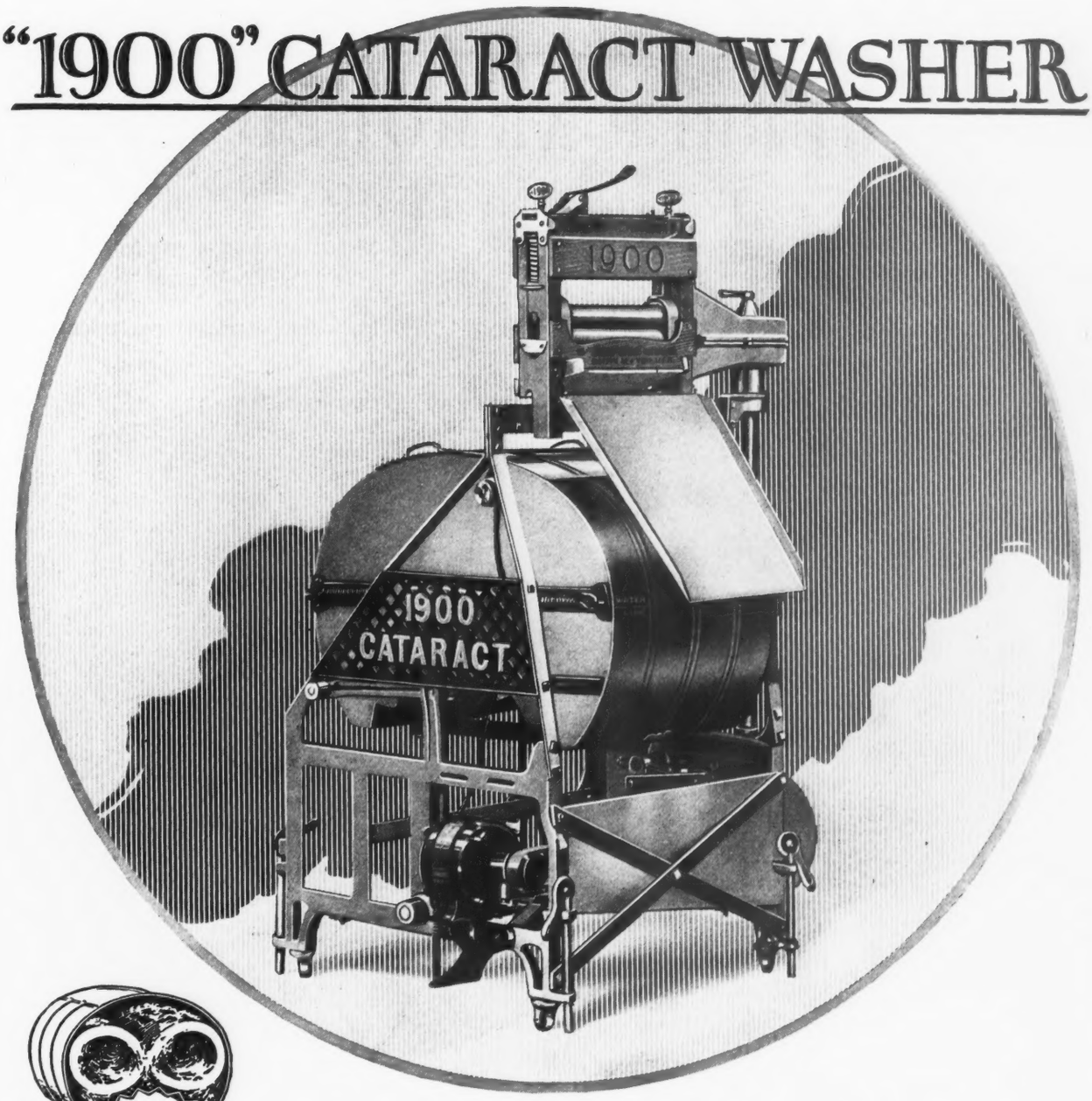


For portable use in any part of the house.

No. 6900 Complete

2332-U

"1900" CATARACT WASHER



THE exclusive *double action* (the famous Figure 8 movement) of the 1900 CATARACT forces the water through the clothes with many times more cleansing force than any other washer. Any woman who has this demonstrated to her immediately concedes its superiority.

Sensible Women Know the Difference!

WE have spent more than a million dollars in advertising the advantages of the Figure 8 movement in the 1900 CATARACT WASHER. Naturally many women of this country are convinced that this principle of washing is superior to all others.

But many other oscillating washers will dash the water back and forth in what looks like a Figure 8 movement when there are no clothes in the tub, and some dealers have been led to believe that the cleansing ability of one oscillator is just as great as another.

You can completely satisfy yourself that the DOUBLE ACTION of the 1900 CATARACT produces the only genuine Figure 8 movement of the water by merely putting a batch of clothes in the tub of any other washer. Then just notice the difference! This simple little test will also convince any woman.

Why not ask us for other facts about the 1900 CATARACT and for our dealer proposition?

1900 Washer Company, Binghamton, N. Y.

"RUBBER-ARMORED"

Tough as a Tire



For Electrical Tools and Appliances.

Packed for Service.

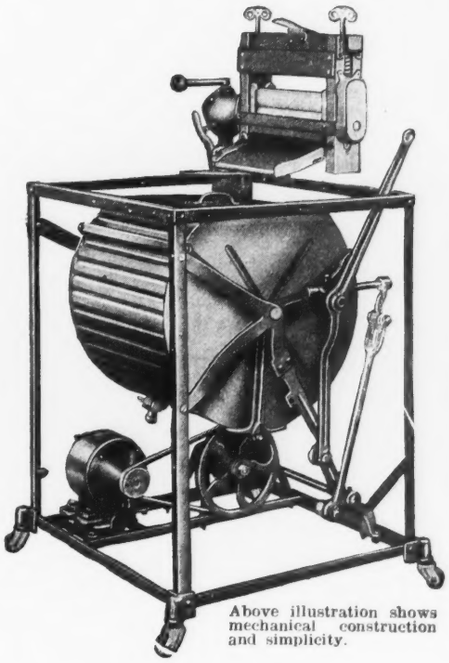
All sizes are furnished in lengths as desired. No. 16 and No. 18 are also packed in special cartons containing 250 feet each, so constructed that the cord may be drawn out as needed without disturbing the remainder of the coil. The package is suitable for reshipment.

SIMPLEX WIRE & CABLE Co

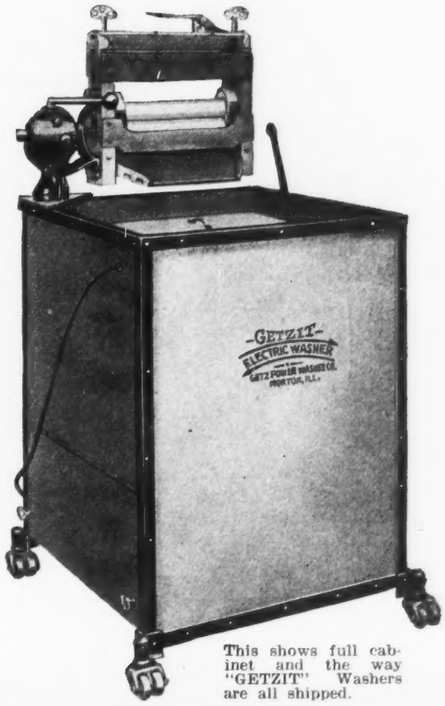
MANUFACTURERS

201 Devonshire St., Boston 9
15 S. Desplaines St., Chicago
612 Howard St., San Francisco

GETZIT $99 ELECTRIC WASHER



Above illustration shows mechanical construction and simplicity.



This shows full cabinet and the way "GETZIT" Washers are all shipped.

This modern L. L. G. Shift used exclusively on "GETZIT" and "American Beauty" Washers, starts the tub in motion by an almost imperceptible movement, without the slightest jar or jerk. It brings the tub back to center without springs.

Positively no bolts or rivets thru the tub. By fitting tub in cradle the distortion common to other oscillators is absorbed.

A special safety control on the main drive pulley breaks the power between motor and mechanism in case of overload or accident.

Westinghouse ¼ H.P. motors.

6-Sheet Copper Tub

A demonstration will mean a sale. You should write today for liberal proposition with plan for financing time sales. Better profits for the dealer who sells "GETZIT" Washers.

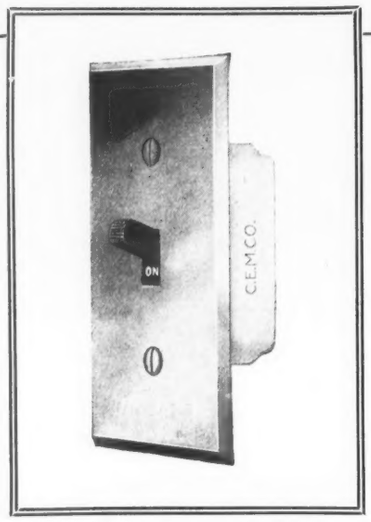
Getz
Power Washer Co.
Morton, Ill.

If you return this coupon we will promptly send you our liberal dealer's proposition. A pencil will do; don't bother about a pen.

Firm .....
Buyer .....
Address .....
City ..... State .....

M. 9-12

When You Want A Shallow Switch



No. 3276 with plate No. 7021

—here it Is!

It's *made* better, is *small* in size. It is very shallow, yet leaves ample room in the box for wires. *Test* it—and it will carry *three* times its rated load. *Compare* it with any other, and you'll see how decidedly superior it is. You'll save time and money by using this Connecticut Toggle Switch. You'll *make* money on any Connecticut Wiring Device! If your Jobber can't supply you, get in touch with us. Remember, there is no substitute for "Connecticut" Quality.

Connecticut Electric Mfg. Co.

Office and Factory: **Bridgeport, Conn.**

Branch Offices:

New York
Aeolian Bldg.

Chicago
Manhattan Bldg.

San Francisco
74 New Montgomery St.

"Connecticut" Means Quality!

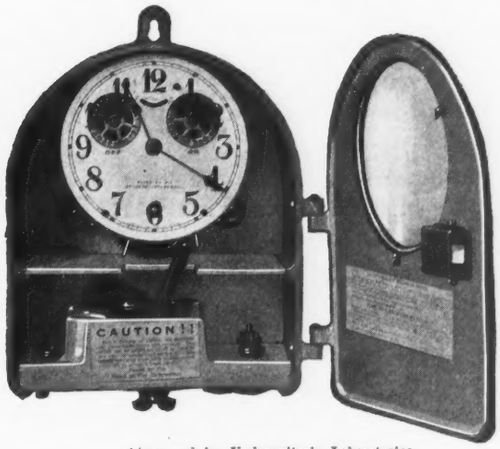
The Mercury Time Switch



Simplicity Solves Time Switch Service Problems

In the past, the heavy amount of servicing has eaten deeply into dealer profits on time switches. This has been overcome in the Mercury Automatic Time Switch by its utter simplicity of design and the liquid Mercury contact which eliminates all friction, arcing and corrosion. All parts are easily accessible, as the switch is not geared to the clock movement. These exclusive features do away with the trouble often experienced by time switch users and make Mercury Automatic Time Switches a profitable and ready seller. We guarantee the Mercury Time Switch, not merely for one year, but for the life of the clock.

Although primarily designed for use on retail store windows, electric signs and the like, when introduced it was immediately adopted as standard equipment by many of the larger Outdoor Advertisers for use on illuminated bulletin boards. It will stand up under all weather conditions.



(Approved by Underwriter's Laboratories, Report No. 3643.)

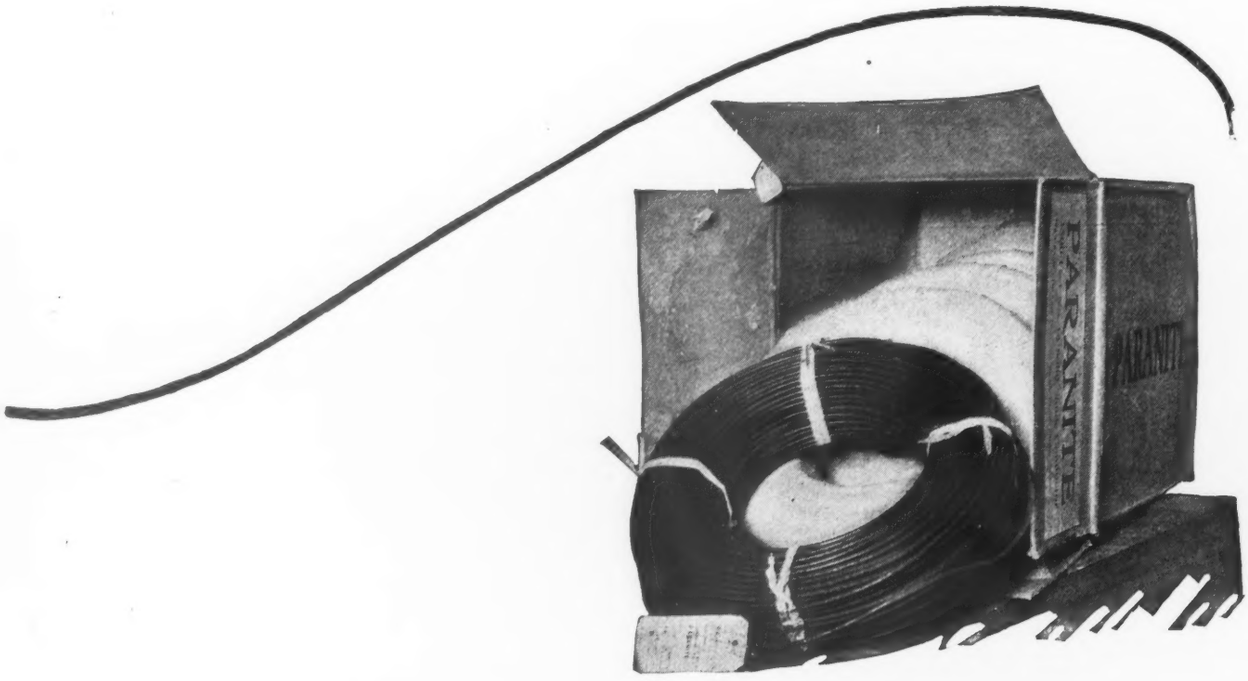
Free Trial!

We will send a Mercury Automatic Time Switch to any reliable electric dealer for free trial. Dealers who have seen and tested the Mercury Time Switch have also seen the profit.

Order one today. Test it thoroughly and to your complete satisfaction. We will also include complete details of our proposition, together with information on our liberal dealer discounts.

MERCURY TIME SWITCH COMPANY
31 East Woodbridge Street, Detroit, Michigan
Eastern Representatives:
MANUFACTURERS DISTRIBUTING CO.
291 Broadway, New York City, N. Y.

RP



Even the Package is "right" —if it's PARANITE

The packages that enclose **PARANITE** wire, like the wire itself, are made for use rather than mere appearance.

Reels are used wherever convenience in handling quantities and protection to the wire will be best provided by reels.

PARANITE insulated wires for general use come in taped coils of 500 feet each, packed five in a shipping case. Experience has shown that this is most convenient for the user, and affords ample protection to the wire.

Cords, and special wires and cables reach the user in the most convenient form for the particular uses of each type of **PARANITE.**

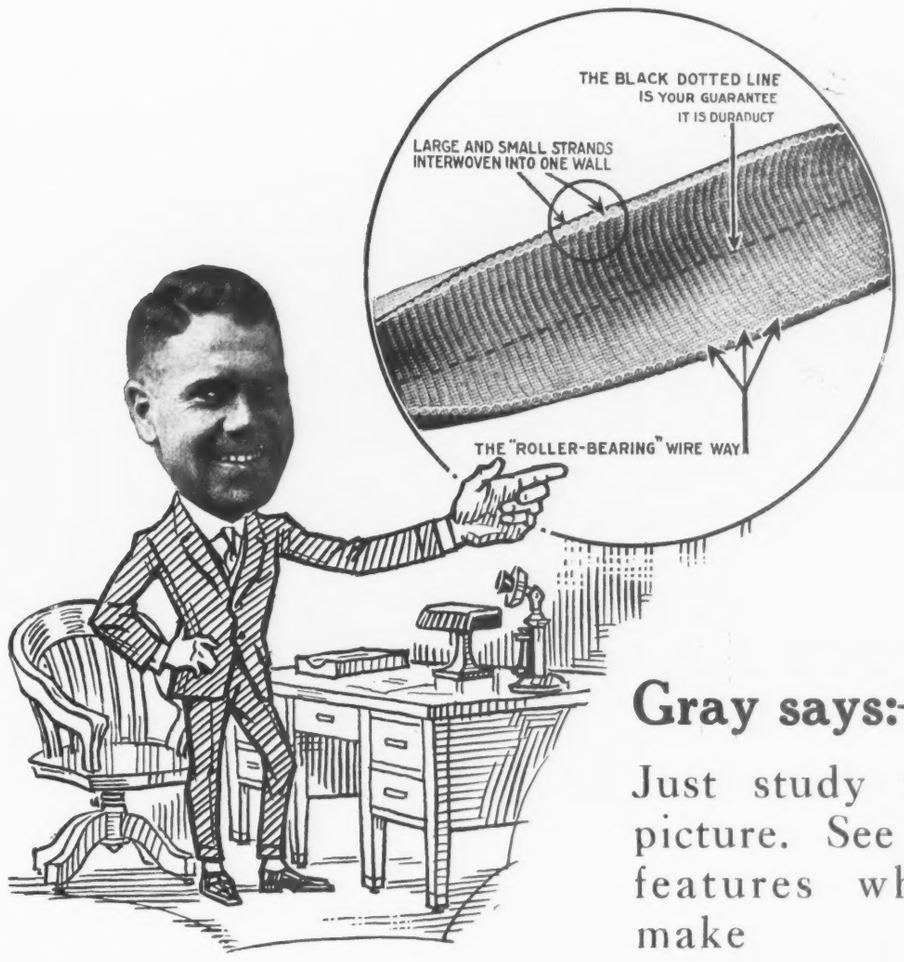
Service, from the point of manufacture through many different hands to the point of installation, is complete if it's **PARANITE.**

Indiana Rubber & Insulated Wire Co.
Jonesboro, Indiana

210 So. Desplaines St., Chicago

The Thomas & Betts Co., 63 Vesey St., New York

IF IT'S **PARANITE** IT'S RIGHT



Gray Jones

That smile of Gray's is the DURADUCT smile—users get it too (because it's a joy to work it).

Gray says:—

Just study that picture. See the features which make

DURADUCT

popular with the contractors.

The Single Interwoven Wall, for instance, prevents blistering and breaking down.

The Roller-Bearing Wireway makes fishing very easy.

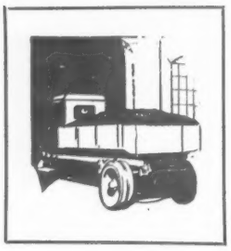
The Black Dotted Line shows it is the genuine DURADUCT.

To insure your getting it, don't order just "Loom"—specify DURADUCT.

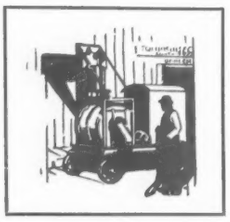
Tubular Woven Fabric Co.
Pawtucket, R. I.

ROME WIRE

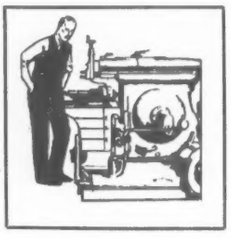
The Endurance that Is Built into ROME "SUPER SERVICE" CORDS



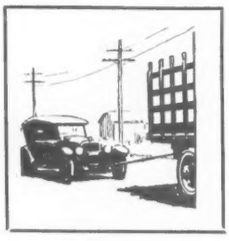
We left it across a macadam roadway, under heavy traffic, for 120 days. It came through unharmed.



We tossed it about in a concrete mixer, with sand and gravel and sharp stones for 32 hours. It came through unharmed.



We gave it 11,000 acute flexures in a steptoe shaper. It came through unharmed.



We used it as towline on a heavy touring car. It came through unharmed.

FROM the copper current-carrying core outward to the vulcanized rubber sheathing — into every millimeter of Super Service's cross-section is built *endurance.*

The conductors are made up of a large number of thoroughly annealed fine bare copper wires, laid up rope strand for maximum flexibility. Each conductor, covered with a close wind of fine cotton, is insulated by a code thickness of high grade 30% rubber, finished with close cotton braid. These separately insulated conductors, cabled together with strong cotton cords, are covered with two layers of Super Service tire-tread rubber, with a strong cord insert between layers. The rubber sheathing being elastic, these cotton fillers eliminate stretching and prevent elongation of the copper conductors. Full and constant carrying capacity is thus assured. The final process is vulcanization under tremendous compression.

That is why "SUPER SERVICE" *endures.*

Give your trade a chance to examine and test out this wonder-cord. It will mean real sales for you. Send for samples and prices.

SUPER SERVICE CORDS



TWO-CONDUCTOR



THREE-CONDUCTOR



FOUR-CONDUCTOR

ROME WIRE COMPANY

Main Plant and Executive Offices

ROME, NEW YORK

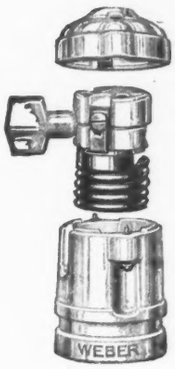
"Diamond R" Branch BUFFALO, N. Y.

DISTRICT SALES OFFICES:

NEW YORK, 50 Church St.
CHICAGO, ILL., 14 E. Jackson Blvd.
DETROIT, MICH., 25 Parsons St.
BOSTON, MASS., Little Bldg.
LOS ANGELES, CAL., J. G. Pomeroy, 336 Azusa St.

WIRE = ROME

WEBER DEPENDABLE WIRING DEVICES



Porcelain Sockets

have important advantages over metal shell sockets for bathrooms, cellars, kitchens and other places where dampness, steam dust or fumes are present. Porcelain does not deteriorate under any of the conditions present in these locations and the finish is indestructible.



Weber Porcelain Sockets

have important advantages over all other makes. They are constructed on the same wiring principle as brass shell sockets, and, in many of the various devices, the interior parts are identical with those used in brass shell devices.



Five Switch and Rosette Bodies



Six Socket Bodies

The Line Is Complete







Twelve Caps





Sixteen Bases

On your next order for porcelain sockets, specify WEBER.
For catalog and samples, write

HENRY D. SEARS
General Sales Agent
80 BOYLSTON STREET
BOSTON 11, MASSACHUSETTS

District Sales Representatives in
New York Philadelphia Cleveland Chicago
Birmingham San Francisco Los Angeles



"Gem" Sectional Switch Boxes

Are Fool-proof and Trouble-proof

So simply and accurately are "Gem" Switch Boxes constructed that it is impossible to assemble them any way but the right way, either singly or in multiple form as gang boxes.

To build gang boxes you merely remove one side and add another unit, making it fast with one screw. The only tool needed is a screw driver.

It is impossible to make a mistake in putting the sections together because all sides are interchangeable. And all sections *must* fit snugly and rigidly. There is no other way to put them together.

Their extreme simplicity makes it easy to build "Gem" Boxes into a number of gangs right on the job and to install them quicker than any other make. This saves delays—reduces cost.

Furnished regularly in a smooth, heavy black insulating enamel finish which is thoroughly rust-proof, moisture-proof and acid-proof.

"Gem" Boxes are suitable for both old and new work. Ears extend ½ in. from body of box, affording ample room for setting screws into lathe or mounting board.

No trouble to install—no trouble *after* they are installed. The original and recognized *Standard* switch box.

May we send you Catalog No. 29?

Chicago Fuse Mfg. Co.

Manufacturers of Switch and Outlet Boxes, Cut-Out Bases, Fuse Plugs, Automobile Fuses, Renewable and Non-Renewable Enclosed Fuses.

CHICAGO **NEW YORK**

"UNION"

SWITCH and OUTLET BOXES

UNION

Announcing

OVALFLEX

The new flat armored cable



THE National Metal Molding Company, pioneers in the manufacture of electrical conduits and fittings, are prepared to supply a flat armored cable which makes wiring easier.

From its shape and its extreme flexibility, the new product has been named OVALFLEX.

OVALFLEX can be laid on brick, tile or concrete surfaces—without chipping or grooving—and covered with plaster.

OVALFLEX can be run on the faces of joists or studding and laths placed beside it, thus eliminating the necessity of boring through joists.

OVALFLEX makes possible exposed installations that are much more sightly than can be made with round armored cable.

In addition to these and many other exclusive features of OVALFLEX it can be used for any purpose for which round armored cable is suitable.

OVALFLEX is obtainable through any reliable electrical jobber.

Send for sample

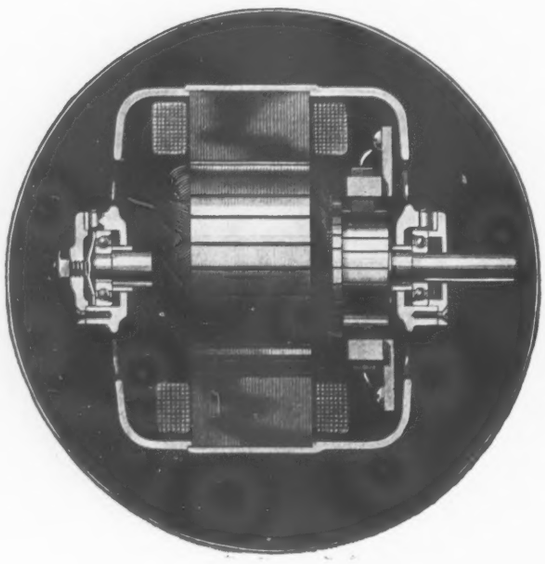
A sample of OVALFLEX together with further information will be sent free to Architects, Engineers and Electrical Contractors who will make their request on their business stationery.

NATIONAL METAL MOLDING COMPANY
1220 Fulton Building
Pittsburgh, Pa.

Representatives in all principal cities

Ovalflex was developed and is produced solely by the makers of National Metal Molding, Sherarduct and Economy Conduit, Flextube, Flexsteel, National Brackets, Liberty Rubber Covered Wire and Cable, Outlet Boxes and Fittings.

A Good Motor on Household Appliances Increases Profits by Reducing Service Expense



Think how utterly useless a thing is a watch with a defective mainspring—and then remember that a household appliance with a defective motor is just as useless. Look—then—to the quality of the motor in the household appliances you make or sell. Be sure that it is dependable. Be sure that it is as nearly "neglect-proof" as a motor can be made—for it must stand both neglect and abuse. Be sure it will bear out your own reputation. And remember that experience shows that most of the costly service expense on household appliances is due to motor troubles—troubles anticipated and guarded against in motors of the right kind.

"NORMA" PRECISION BALL BEARINGS

Make Good Motors Better

These dust-protected, lubricant-packed, non-leaking, high-speed bearings materially reduce service expense—most of which is the result of too little oil, or too much oil, or oil of the wrong kind. As a result, a "NORMA" equipped motor runs better, lasts longer, does more work, uses less current, keeps cleaner, sells more easily, costs the owner less to run, costs the dealer less to maintain. "NORMA" equipped motors have repeatedly, under continuous running tests, operated without attention over periods equivalent to many years of ordinary household service. Think what this means in the way of reduced service expense and increased customer satisfaction.

A booklet will be sent on request, and our engineers will welcome an opportunity to work with yours.

THE NORMA COMPANY OF AMERICA

Anable Avenue Long Island City New York

BALL, ROLLER AND THRUST BEARINGS

EVERY FUSE TESTED

NOARK

EVERY FUSE APPROVED

J-P.Co. NOARK FUSE REG. IN U.S. PAT. OFF.

PROTECTION SERVICE JP VULCABESTON



Worthy of their name—*and of your trust*

Noark NON-INDICATING FUSES are new-comers to the Noark line.

But they are every whit worthy of their name—and of your trust. The one thing connotes the other.

Noark Fuses will never be cheapened at the expense of quality.

You cannot buy a Noark Fuse designed for service where protective equipment of another type should be used.

But you can buy a Noark Fuse designed to serve every purpose for which fuses should be used. And in such service you can rely absolutely on the *dependable protection* afforded by Noark Fuse performance.

Whether your requirements are for fuses of 1 ampere capacity or 1,000 amperes—fuses for a 6-volt automobile lighting circuit, 110-volt house lighting service, a 220, 440 or 600-volt power line, a 2200, 4400, 6600 or 13,000-volt transmission line—or any other standard voltage, amperage or class of service—there is a Noark Fuse exactly adapted to your requirements.

Noark Fuses are made with ferrule contacts, knife-blade contacts, post contacts, flush contacts, variously modified for differing service applications, and are supplied in all ratings desired with these respective types.

Noark service is *your* service for every electrical protective problem.

THE JOHNS-PRATT COMPANY, HARTFORD, CONN.

NEW YORK 41 East 42nd Street
BOSTON (9) 161 Summer Street
SAN FRANCISCO Call Building
ST. LOUIS Boatmen's Bank Bldg.
CHICAGO 35 So. Desplaines St.
PITTSBURGH Bessemer Bldg.
PHILADELPHIA Franklin Trust Bldg.

Johns-Pratt

NOARK FUSES AND PROTECTIVE DEVICES
VULCABESTON PACKING AND INSULATION
JOHNS-PRATT MOLDED PRODUCTS

1920-4

The NEW C-H 70-51



Look for the "C-H" trade-mark

Your Customers Will Thank You for Showing Them *The* C-H 70-51

Here is a Switch-Connector that will please you and your customers—designed and made with Cutler-Hammer thoroughness.

Inside the strong C-H Thermoplax heat-proof casing—you will find the same quick make-and-break snappy mechanism that has so successfully served the million users of C-H Seventy-Fifty Switches.

The "C-H" trade-mark is moulded in every casing—insurance and guarantee of satisfaction.

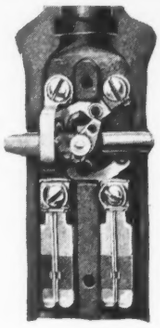
The C-H 70-51 combines a universal connector of superior design with switching convenience. It saves yanking of the cord and troubles due to burnt contact posts and loose cord terminals.

Easy to Attach

Any one can attach the C-H 70-51 Switch-Connector. The two ends of the cord are connected to the binding screws at the top—that's all.

Big Sales Possible

Every user and purchaser of electrical appliances will readily appreciate the value, if called to their attention. In fact, they can be sold like 70-50's, by electrical dealers sending salesmen or saleswomen (or high school and college students) to sell and install them from house to house.



The two ends of the cord are readily attached to the terminal screws placed at the top.

The casing is so moulded that it does not interfere with guards used on some appliances and the extra length terminals can be pushed down to make good, thorough contact with the contact posts.



C-H ***Heat-proof Thermoplax contains and insulates the Switch and terminal clips. Made in two halves for ready accessibility.***

THE CUTLER-HAMMER MFG. CO.

Switch and Specialty Department

Works: MILWAUKEE, WISCONSIN

C-H *Your Guarantee of Satisfaction*

SWITCH-CONNECTOR

HUBBELL



This WINDOW DISPLAY *Sent Free*

While they last we will send free to any dealer requesting, one complete set of signs and circles for featuring Hubbell Te-Tap No. 1 (3190). Beautifully printed in red and black.

Send the Coupon Now

Increased Sales 2700%

This Window Display, featuring Hubbell Te-Tap No. 1 (3190) and Hubbell Convenience Outlets, was designed for us by a large electrical distributor, and used by retailers in greater New York during the month of September. Our Sales in this district in *one month* showed an immediate increase of 2600% over average figures for preceding months—*and one electrical dealer reported an increase in "over the counter" retail sales of* 2700%.

Why not use these cards in your Xmas Window?

Here is an opportunity to demonstrate your electrical appliances. Show them plugged into Hubbell Te-Taps. Sell more appliances by giving people this safe and convenient means of connecting them to present electrical outlets.

Hubbell Te-Tap No. 1 (3190) is a standard pull socket with screw base and side outlet having Hubbell Te-Slots. It is sold complete in a handsome carton.

These display cards are printed in red and black, on heavy white stock. They might easily be used in your Xmas Window—and Te-Taps make excellent Xmas Presents. Mark the coupon now for this display material and *imprinted* circulars.

HARVEY HUBBELL INC
ELECTRICAL SPECIALTIES
BRIDGEPORT CONN. U.S.A.

HARVEY HUBBELL,
Inc.,
Bridgeport, Conn.

Gentlemen:
Please send me free one set of cards for Te-Tap Window Display.
Also send me imprinted circulars as shown below:

Circulars wanted.....

.....

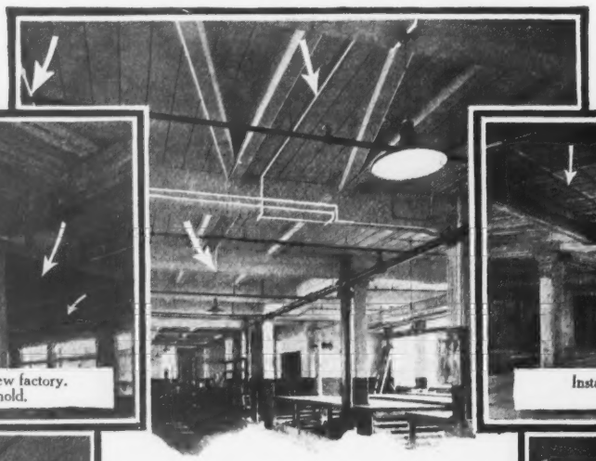
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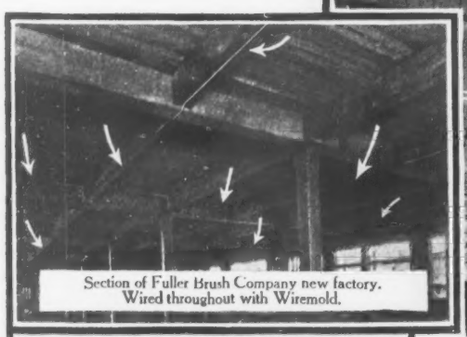
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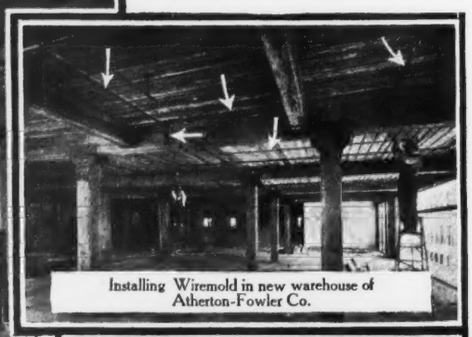
Wire new buildings and rewire old ones on the surface with WIREMOLD CONDUIT

[Section of Goodyear Rubber Company factory. Wired throughout with Wiremold.]





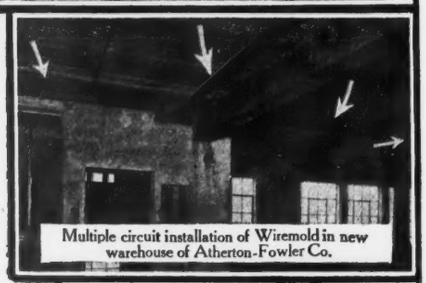
Section of Fuller Brush Company new factory. Wired throughout with Wiremold.



Installing Wiremold in new warehouse of Atherton-Fowler Co.



Section of Hartford Special Mch'y Co. plant. Wired throughout with Wiremold.



Multiple circuit installation of Wiremold in new warehouse of Atherton-Fowler Co.

Why?

Because—



Concrete ceiling lighting installation of Wiremold in Factory Insurance Ass'n offices.



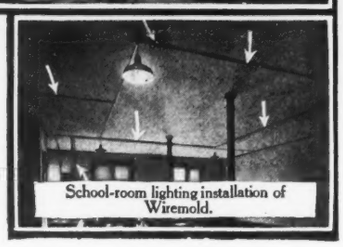
Installing Wiremold in new offices of N. Y., N. H. & H. R. R.

Wiremold is installed after buildings are erected, permitting the location of wiring outlets just where they are needed.

Wiremold costs less to buy and to install than any other conduit. Wiremold makes a strong, neat appearing job.



Office lighting installation of Wiremold.



School-room lighting installation of Wiremold.

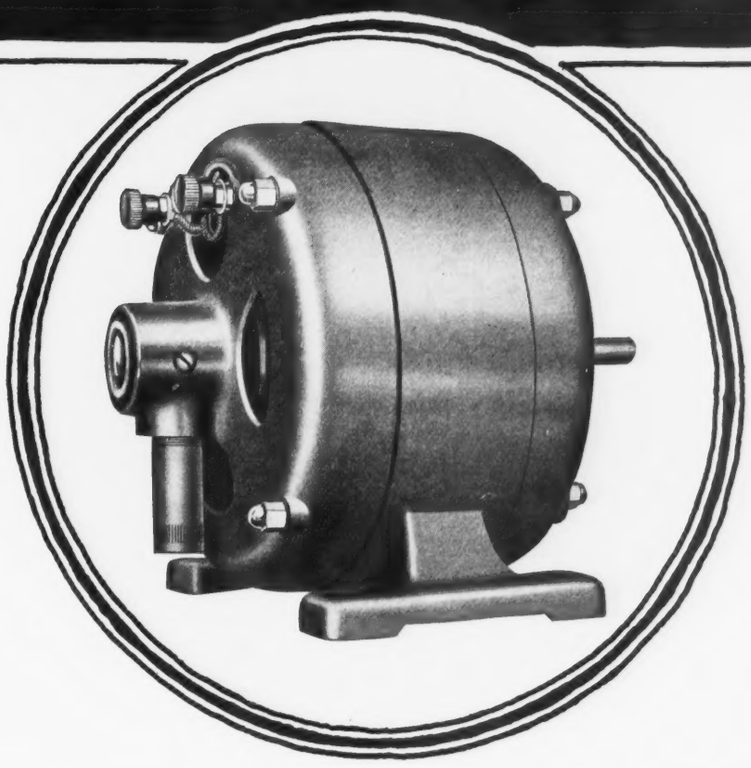
Wiremold is the modern way, satisfied users say so.

Write today for complete information, catalogue and sample

THE
AMERICAN WIREMOLD COMPANY
HARTFORD, CONN.

SUNLIGHT

FRACTIONAL HORSE POWER MOTORS

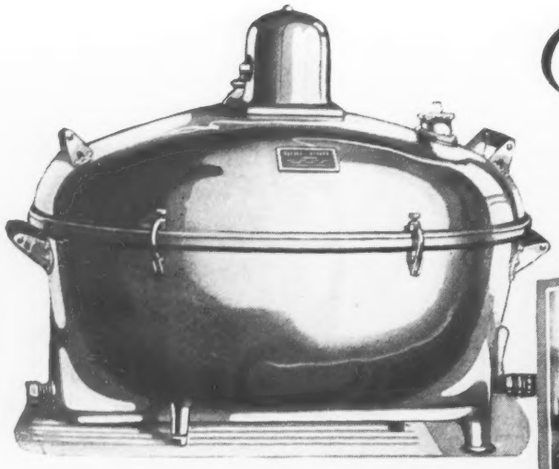


Your Future Sales Hinge Upon the Motor You Build Into Your Appliance

THE successful performance of motor-driven appliances depends to a great extent upon the motor. When the motor falls down on the job, the appliance is temporarily useless. This causes dissatisfaction on the part of the user and materially hurts the appliance's reputation, undermines future sales and makes the marketing of the product more difficult.

Dealers have found that Sunlight Motors are a big factor in satisfying the housewife with her motor-driven appliance because of the trouble-free service given and the small amount of servicing demanded. Exceptional serviceability and small operating expense make Sunlight Motors unexcelled for manufacturers' use on washing machines, electric cleaners, ironers, etc. Many of the leading electrical manufacturers are using Sunlight Motors in large quantities. Large overload capacity, high starting torque, perfect ventilation, large shaft and ample bearings make Sunlight Motors 100% efficient. Let us estimate on your small motor requirements.

Sunlight Electrical Manufacturing Company
Warren, Ohio



Sold with or without portable elevating pedestal

The Cinderella
Electric Dish Washer
Washes Rinses Dries



It's here! the perfected domestic dish washer. Low-priced, neat, compact, no plumbing, no moving parts, pumps or mechanism and *it does the work perfectly!*

An Entirely New Principle

ATMOSPHERIC pressure does the work. There are no pumps, paddles, moving mechanism,—*and that means no servicing expense!*

A motor driven suction fan exhausts the air above the surface of the water. Atmospheric pressure drives a blast of air up from the bottom that lifts and agitates the hot water to form a mass of thick, heavy churning suds that washes the dirtiest, stickiest dishes spotlessly clean.

Weighs only 26 lbs.—can be handily demonstrated by home canvassing. A demonstration quickly proves the claims, which to the housewife actually sound too good to be true.

Surprisingly low priced, and the dealer-profit is right.

We want live dealers—and the live merchant in a community is the one who wants all the facts on this new wonderful home utility and sends in the coupon *now*.

The Cinderella Electric Dish Washer Co.
5100 Superior Avenue, Cleveland, Ohio

Doing dishes a 9-minute operation with the Cinderella.

1. *The dirty dishes are removed from the table and placed directly into the Cinderella.*



2. *(The Cinderella holds all the dishes required to serve a meal for six persons.) Wheeled into the kitchen. Rolls as easily as a tea cart.*



3. *Pushing down a handle elevates the Cinderella to position above sink. While machine is operating, the housewife is free for other duties.*



4. *9 minutes later. The dishes perfectly washed, rinsed, sterilized, dried and polished are removed from the Cinderella and placed directly into cupboard.*

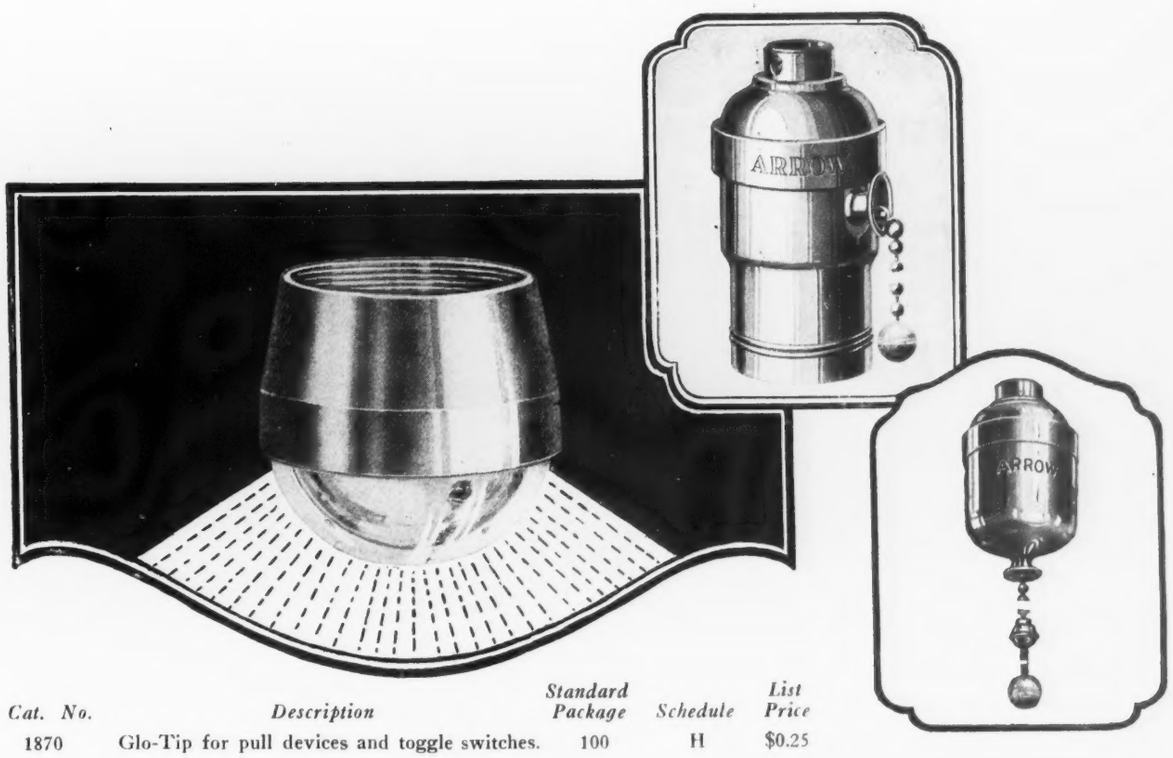
THE CINDERELLA DISH WASHER CO.
5100 Superior Ave., Cleveland, Ohio

Gentlemen: Send complete information descriptive of the Cinderella Electric Dishwasher and full details as to prices, discounts and territorial arrangements.

Company _____

Address _____

City _____



Cat. No.	Description	Standard Package	Schedule	List Price
1870	Glo-Tip for pull devices and toggle switches.	100	H	$0.25

Arrow GLO-Tip



ANOTHER reason for using Arrow Pull Sockets, Pull Switches and Toggle Switches, both Surface and Flush. All varieties of these four classes of devices have threaded balls or handles to which this luminous tip can be attached. The use of Arrow devices makes possible the attaching of a Glo-Tip radium indicator whenever desired without changing the old installation or ordering special material. This threaded feature is standard with the Arrow Line.



THE ARROW ELECTRIC COMPANY
HARTFORD, CONN.

ELECTRICAL ARROW WIRING DEVICES

ARROW

The complete line of Wiring Devices



The Value of *The Torrington Shop* to You—

WHEN you become The Torrington Shop in your territory you automatically become the center of sales.

The Torrington Company's Resale Plan assures you the protection of exclusive sales rights in your own territory. And every sale made, whether by our demonstrator or in your own shop is your sale. Requests for demonstrations and all advertising literature are directed to "The Torrington Shop" in your city.

When you become the Torrington dealer in your territory, you will retain your firm name that has established your reputation in your community and add to it the profitable advantages of being known as The Torrington Shop.

There are still some territories open, perhaps the one right in your city. For full details of this plan that is helping dealers everywhere to sell more Torrington Electric Cleaners, write to

The Torrington Company
Established 1866
Torrington, Connecticut

or to any one of our branches:

San Francisco Denver Chicago Boston
Los Angeles Kansas City St. Louis Newark
Dallas Minneapolis Indianapolis Atlanta



The Torrington message in "Good Housekeeping" for January, 1923

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Torrington is a joy in its faithful helpfulness.

ne really clean

e Torrington way

Any Torrington Shop will gladly give you a free demonstration of The Torrington and tell you how easily you can own one. "The Torrington Servant in the Home" is the title of a de luxe book we believe you would enjoy reading. A post card request to The Torrington Company, Torrington, Connecticut, or any one of The Torrington Shops will put it in the mail, free.

Unless you use The Torrington you won't get all the dirt



The Torrington ELECTRIC CLEANER

The Torrington Company *Established 1866* **Torrington, Connecticut**

The Torrington Shop 833 Market Street San Francisco, Calif.	The Torrington Shop Union Arcade Bldg. Pittsburgh, Pa.	The Torrington Shop 15 East Adams Street Republic Bldg., Chicago, Ill.	The Torrington Shop 853 Second Avenue, S. Minneapolis, Minn.	The Torrington Shop 1025 17th Street Denver, Colo.	The Torrington Shop 114 East Ohio Street Indianapolis, Ind.
The Torrington Shop 113 South 11th Street Philadelphia, Pa.	The Torrington Shop 1318 McGee Street Kansas City, Mo.	The Torrington Shop 1124 Locust Street St. Louis, Mo.	The Torrington Shop 412-16 Union Street Nashville, Tenn.	The Torrington Shop 27 School Street Boston, Mass.	The Torrington Shop 450 Broad Street Newark, N. J.

Canadian Factory: Upper Bedford, Que.



Prepare to Take Advantage of This National Advertising

January 27th is the date!

On the last Saturday in the first month of the new year the American Blower Company will inaugurate its national advertising campaign.

In every city, village and town—wherever there is electricity—the educational campaign on the need for better ventilation in business place and home will be carried on through full page advertisements in the Saturday Evening Post.

If you are not thoroughly familiar with the details of this campaign—as well as the merchandising plan which has been perfected to aid electrical dealers to increase their business and profits—write today for complete information.

Our new, enlarged merchandising book, "Electric Ventilation," explaining how the American Blower Company cooperates with dealers—will be ready for distribution early in January. Make your reservation for a copy today. It's free.

AMERICAN BLOWER COMPANY, DETROIT
BRANCH OFFICES IN ALL PRINCIPAL CITIES
CANADIAN SIROCCO COMPANY, LIMITED, WINDSOR, ONTARIO

(170)

American Blower

"Sirocco" TRADE MARK

VENTILATING FANS

"Give the fullest measure of service first and expect your reward afterward."

—This principle, repeatedly voiced by James H. McGraw, guides the business of publishing these great industrial journals.

McGraw-Hill Publications:

American Machinist
Serves the men responsible for results wherever any kind of machinery is made or used. The recognized clearing house of the better ways of doing things in the machine shop, of the new ideas in machinery and of the most approved methods in shop management. $5.00 per year.

American Machinist—European Edition
Published in London (for 23 years) by a special staff who thoroughly understand the needs and wishes of the machinery manufacturing executives of Great Britain and the European Continent. 35 shillings per year.

Bus Transportation
A transportation engineering and business paper of the passenger bus industry—including automotive buses, trackless trolleys and any other self-propelled buses. It covers managerial, organization, operating and maintenance problems, complete news of the industry and details of equipment. $2.00 per year.

Chemical and Metallurgical Engineering
Exponent of the fundamental engineering principles on which the chemical, metallurgical and allied industries are based. The scope of its editorials and articles may be summarized as the engineering, technology and economics of those industries. $5.00 per year.

Coal Age
Devoted to the mining and marketing of coal. Presents new methods, new equipment, new construction, current news, production statistics and market data. $3.00 per year.

Electrical Merchandising
The monthly magazine of the electrical trade. It gathers from the field new selling ideas and effective commercial and financial methods and disseminates these facts among those who sell, manage and finance electrical appliances, equipment, supplies or service. $2.00 per year.

Electric Railway Journal
The engineering and business newspaper of the electric railway industry. It thoroughly covers corporate policies, construction, managerial, operating and maintenance methods, legal and financial news, equipment and supplies and all phases of public relations. $4.00 per year.

Electrical World
The executives' and engineers' paper, including in its scope public policy matters and the outstanding commercial situations. It presents the latest authoritative information on the activities of the central station, the industrial electrical engineer and on the scientific, manufacturing and commercial fields of electricity. $5.00 per year.

Electrical Review and Industrial Engineer
Devoted to the problems of electric operation and maintenance in mills and factories, particularly from the standpoint of the man responsible for the proper inspection, operation and maintenance of electrical equipment. $2.00 per year. *(Published in Chicago.)*

Engineering and Mining Journal-Press
Recognized as the standard authority on metal mining, milling, refining and on the mineral industries. Reports on methods, processes and improved equipment used in the leading mines, mills and smelters. Gives authoritative summaries of market conditions and prices. $4.00 per year.

Engineering News-Record
Records the intimate technical details concerning notable operations, keeps its readers abreast of current engineering and construction practice, and reports promptly and accurately the civil engineering and construction news of the day. $5.00 per year.

Ingenieria Internacional
Presents the latest information on the current achievements, practices, equipment and apparatus of the five major branches of engineering in all parts of the world, with special reference to their application and use in the Spanish-reading countries. $5.00 per year. *(Printed in Spanish.)*

Journal of Electricity and Western Industry
Reports Western events, advocating economy, efficiency and convenience of electric power for all industries of the West, manufacturing, agricultural, mining, merchandising and home-building. $2.50 per year. *(Published in San Francisco.)*

Power
It reports every phase of the progress in the generation and transmission within the power plant—including steam, oil, gas and water-power prime movers, and electrical refrigerating ventilating, pump and elevator auxiliary equipment. $3.00 per year.



Promotion Dept., McGraw-Hill Company, Inc.
Tenth Ave. at 36th St., New York City

Please send me a sample copy of .....

I am particularly interested in articles on .....

Name.....

Position.....

Company.....

Address.....

Don't Run Short
on
"Whip All" *this Xmas*

A gift which combines ORIGINALITY with SERVICE is ideal.

You can benefit from such an appliance by recommending Whip-All to Christmas shoppers.

Its improvements make it pre-eminently qualified as a household mixer for all uses. It is safe, sturdy and practicable, endorsed by Domestic Science Bureaus.

The run on Whip-All last year has given us experience. This year we have anticipated the holiday demand. We are in a position to make immediate express shipments. Wire us today for your Christmas allotment.



The improved "Whip-All"

Is equipped with a speed regulator, to meet voltage fluctuation, and to accomplish the more difficult things required, such as beating eggs, whipping cream, making delicious mayonnaise. It beats cake batters to smoothness and makes nutritious egg and malted milk drinks.

AIR-O-MIX
INCORPORATED
Factory and Office: Beech and Anchorage Streets
WILMINGTON, DELAWARE

Whip-All

The Electric Food Mixer



October Sales 30% Ahead of Last Year

Convenient features of the OHIO-TUEC that make selling it easier

1. Self-starter, located in protected position on side of motor, starts motor by lowering handle to operating position and stops it by raising handle to upright position.

2. Gently revolving traction-driven brush picks up thread, lint, etc.; straightens and brightens nap of carpet without injuring it.

3. Dust-shutter in exhaust of cleaner—not in throat of dust-bag—prevents dust and dirt falling back through cleaner onto floor.

4. Electric cord all outside of handle. Wears longer and is more convenient.

5. One end opening dust-bag. Easily removed and emptied.

6. Nozzle adjustment quickly adjusted to any floor covering.

7. Locking device for cleaning stairs, small rugs and upholstery.

8. Curved nozzle lip protects furniture from injury.

9. Convenient pistol-grip handle.

10. Especially powerful suction. Gets the dust and dirt.

11. *Weighs only* 11½ *lbs.*

12. OHIO-TUEC attachments for every cleaning need.

13. THE FINEST-LOOKING CLEANER IN AMERICA!

Several very valuable OHIO-TUEC Sales Franchises are available. Write for particulars.

Address W. F. Marr, Director of Sales

THE UNITED ELECTRIC COMPANY
1310 8th St., N.E., Canton, Ohio
81 Chestnut St., Toronto, Canada

OHIO-TUEC ELECTRIC CLEANER

"The Cleaner with the Self-Starter"



This is Model No. 80 New Maytag Gyrafoam Electric Washer equipped with General Electric Motor.

All Metal Construction
Aluminum Tub
Cannot warp, leak, rust or corrode.

Other models are No. 82 Multi-Motor with Built-In Gasoline Engine; Model No. 81 for belt power.

Maytag Gyrafoam Washer

CAST ALUMINUM TUB

Speed and ease in cleansing give this remarkable washer astonishing speed and ease in selling. It has no competition because it is totally new in principle and operation. One sample in action on your floor or in your window will sell scores of machines. This is the greatest proposition Maytag has ever offered dealers. Order a machine for demonstration, or write us to send a representative.

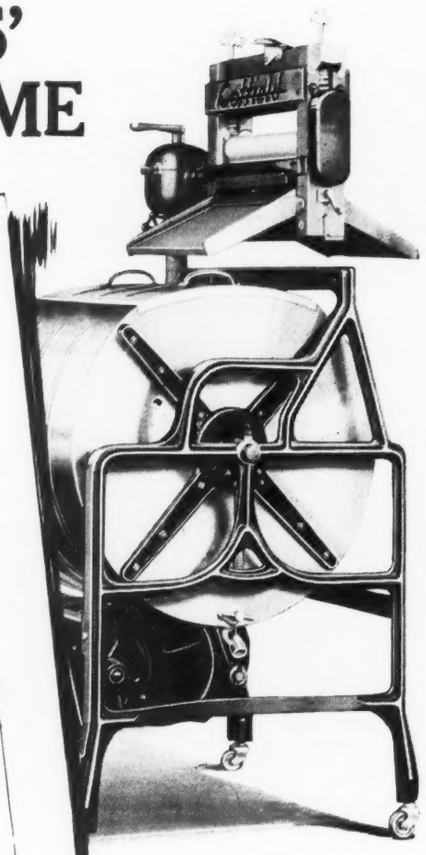
THE MAYTAG COMPANY, Newton, Iowa

Makers of Maytag Multi-Motor, Electric, Belt and Hand Power Washers

Branches: Philadelphia, Pa.; Indianapolis, Ind.; Minneapolis, Minn.; Portland Oregon, Winnipeg, Man., Canada; The Maytag Company of England, 323 Caledonian Road, King's Cross, London.

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TWENTY-THREE YEARS' SERVICE IN THE HOME



July 16, 1922

Fairmont Electric Service Co
309 Monroe St
Fairmont W Va

Gentlemen:
I wish to thank you for selling me a Coffield washer just sixteen months ago today. I have done twelve hundred and fifty washings to date, and have not been without the use of the machine a single day.
My machine is as good as new after being used the equivalent of twenty three years ordinary service in the home. My banner week was twenty one washings and these were finished by Thursday noon.
I heartily recommend the Coffield washer as the best Electric washer sold today.

Sincerely yours,
Mrs Blanche Sterne

P S It is easy to laugh on wash day if you use a Coffield.



Coffield has manufactured washers for eighteen years. During that time we have endeavored constantly to manufacture honest washers and sell them at honest prices. That is the Coffield ideal.

Our growth has been gradual, but constant. Coffield dealers make money. If you want to build on that foundation, the Coffield man will be glad to talk to you.

Here you have the testimony of the One Who Counts—the woman who uses the washer.

Think of it! The equivalent of twenty-three years' ordinary service in the home—and never without her washer.

That is the kind of service that pleases and pays—both the owner and the dealer. The Coffield dealership would please you and pay you too. Why not write us about it right now!

THE COFFIELD WASHER CO., Dayton, Ohio

Producers of Washday Smiles since 1904

The Coffield Washer Co. of Canada, Ltd., Hamilton, Ont.

Coffield



Are You Getting TRUMBULL CHEER?

"TRUMBULL CHEER" is the official house organ of our company, in which all new lines are illustrated and by which information on *"Trumbull"* material is given to the trade.

It contains each month articles on live subjects of the day—social, moral, industrial, economical—it does not deal in religious or political subjects.

In its columns, "Among the Trade," the best available jokes are wished on to our friends in the industry. Some of which are sent us, and others of which we ourselves corral.

TRUMBULL CHEER *is now completing its sixteenth year* and is a helpful inspiration to some 37,000 Electrical men every month of the year. We want to be sure that *every* interested man in the Electrical Industry is on our *free mailing list* and gets *Trumbull Cheer each* month. If *you* are not receiving your copy, fill out the blank below and mail it to *"Trumbull Cheer,"* Dept 3, Plainville, Conn.

TRUMBULL ELECTRIC MFG. CO.

Plainville, Conn.

New York
San Francisco
Philadelphia
Barcelona
Chicago
Boston
Buenos Aires
London
Sydney, N. S. W.

Fill out this blank now

Trumbull Cheer, Dept. 3,
Plainville, Conn.

Genlemen: We would like to join the 37,000 readers of "Trumbull Cheer." Please enter our name on your list.

Name .....

Address .....

Capitalize Cleveland's Biggest Electrical Buying Season!

The biggest electrical buying season that Cleveland has ever known is just starting, for Cleveland will spend more money for electrical goods this Christmas than ever before in its history. This is due to the fact that the people of Cleveland and vicinity are being educated to the comforts and conveniences of things electrical thru Cleveland's Electrical Homes, the Plain Dealer's Electrical Pages every Thursday and the natural and ever-growing desire for things that make living conditions better.

This Christmas season, manufacturers of electrical goods are offered the biggest opportunity ever presented for volume sales. Manufacturer-advertisers can reach this buying power thru the Plain Dealer—the paper that all worth-while people of Cleveland read.

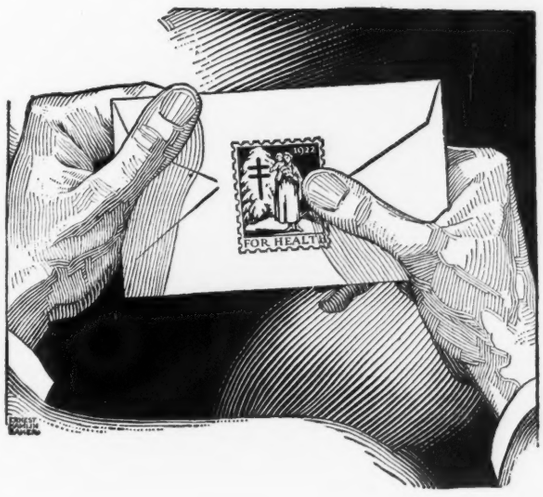
Astounding results can be secured from now until December 25th by reaching these people when the purse-strings are untied. Start your Christmas advertising in the Plain Dealer—NOW!

The Plain Dealer

First Newspaper of Cleveland, Fifth City

JOHN B. WOODWARD
Times Bldg., New York

WOODWARD & KELLY
Fine Arts Bldg., Detroit Security Bldg., Chicago



Honor These Seals

A NATION-WIDE movement is carrying on a warfare against the scourge of Consumption. In saving over 100,000 lives last year, it actually *cut the death rate from tuberculosis in half.*

Each year these organizations sell Tuberculosis Christmas Seals. The proceeds from these sales are devoted to the work of caring for and curing tuberculosis patients and to educational and other work to prevent the dread disease.

Buy these Seals and urge your friends to buy and use them. To do this is both Charity and Patriotism.



Stamp Out Tuberculosis with Christmas Seals

The National, State and Local Tuberculosis Associations of the United States

SHELTON

Outfit No. 20
$12.50



Headquarters for Vibrators and Violet-Ray Apparatus

$12.50 up

Send for General Catalog



Shelton Electric Co.

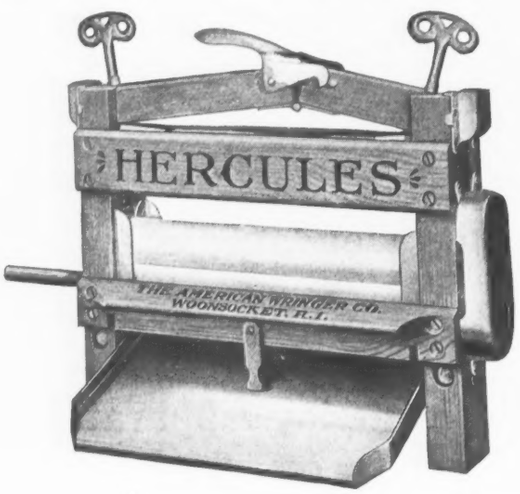
16 E. 42nd St., New York, N. Y.
30 E. Randolph St., Chicago, Ill.

Washing Machine

Manufacturers, Jobbers, Dealers!

In Making Your Plans for 1923

Can you afford to buy your washing machine wringers without first getting the truth about "HERCULES" Models?



Do you know

Why a wood frame wringer is better than a metal wringer?

Why "Hercules" (patent construction) rolls are far superior to other types?

Why hot-galvanizing is preferable to electro-galvanizing?

Why self-oiling plain bearings have been found most satisfactory?

If you have not already done so an actual test of a Hercules Wringer on your product will convince you of it's absolute superiority over any other wringer on the market.

Can you afford to disregard the judgment of the concerns listed at the left? They have learned in the school of experience where their dollars will buy the utmost in wringer value.

A Few of the Many Satisfied Users

Altorfer
Apex
Coffield
Haag
L. F. and C. 1900
Syracuse
Voss

American Wringer Company
Woonsocket Rhode Island

SIGN AND MAIL

I want to try the "Hercules" Wringer on my Washing machine. Send me Blue print and specifications form.

Send me the answers to the above questions.

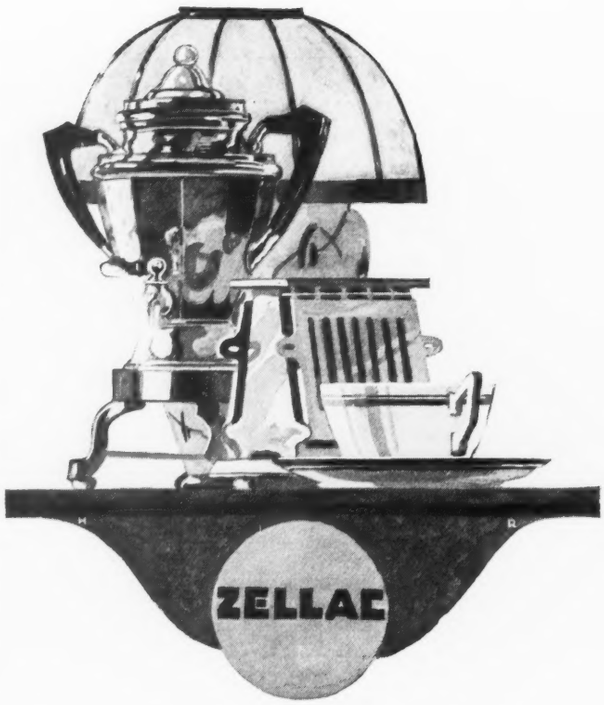
I am a Manufacturer ☐. Jobber ☐. Dealer ☐

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Irresistible Finishes

Explanation of the intricacy of a heating element or other technical mechanism is seldom understood by the average purchaser of electrical appliances. But distinctiveness in design together with a *beautiful* and *durable* FINISH is understood and appreciated by everybody.

Hence electrical appliances and products sell faster when they have applied to them a compellingly attractive finish—a finish which is impossible for people to overlook.

Such are Zellac finishes, created thru Lacquers, Enamels or Bronzings, on electrical devices, causing a noticeable increase in the sale of such products. Time and again Zellac finishes have metamorphized mediocre products into superlative sellers. We shall be pleased to tell you how. Simply write us, stating what you are making, and we will recommend a finish of rare, hardy beauty, created economically.

Zeller Lacquer Mfg. Company
342 Madison Ave., New York
Chicago: 622 W. Monroe St.

The "SOL-SAN"
Knock Down Steel Tub Bench

Designed to get full value of the Labor Saving of the Electric Washer



Tested and Approved by the Department of Household Engineering Good Housekeeping Institute Conducted by 2291 Good Housekeeping Magazine

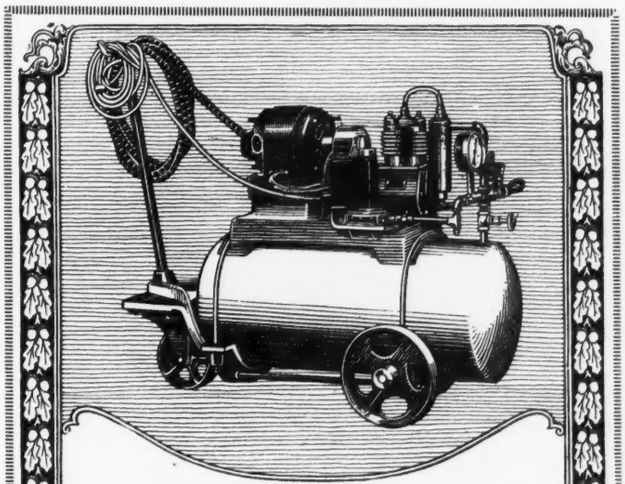
Why let your customers use OLD CHAIRS, BOXES, etc., and lose efficiency? Sell the LABOR-SAVING "SOL-SAN" (Solid-Sanitary) K. D. Steel Tub Bench, which holds the Rinse-tubs and Basket "right" under wringer to prevent slop and splash and at proper height to AVOID STOOPING.

Made all of steel—parts electrically welded—knocks down (don't fold) or sets up without use of tools.

QUALITY, CONVENIENCE and DURABILITY at a low cost. *Write us about it.*

TRADE MARK SOL-SAN PATENTED PENDING

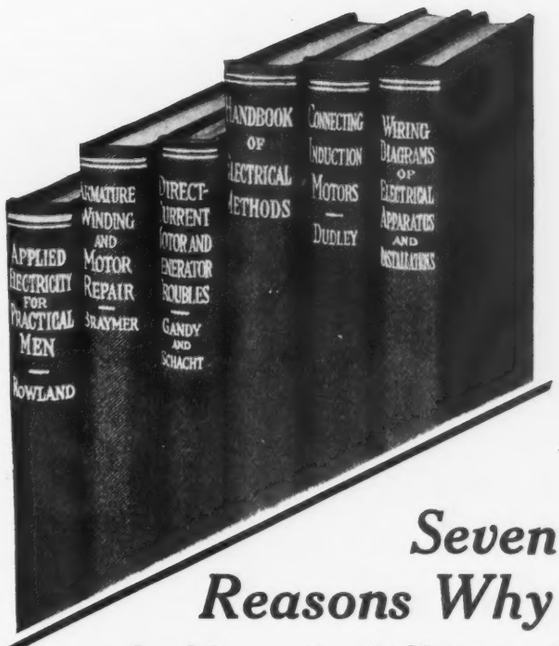
DRISKELL BENCH COMPANY
172-78 W. Locust St., Columbus, Ohio



The Air Is Always There

The New Model H Tank Outfit—either stationary or portable—with either regular alternating current motor or direct current motor, is the most economical and serviceable garage pump designed. Tank guaranteed for 150 lbs.—constant working pressure. Delivers 2½ cubic feet of free air per minute—a quick and steady worker—fully guaranteed. Send for complete description of three other models.

HARTFORD
MACHINE SCREW COMPANY
HARTFORD, CONN.
NEW YORK, DETROIT, SAN FRANCISCO, RICHMOND, VA.



Seven Reasons Why
you should examine this library of
Electrical Repair and Maintenance
for 10 days free

1. The six books in this library discuss actual repair jobs and show you step by step what to do when something goes wrong.
2. They show you how to locate and remedy motor and generator troubles.
3. They show you how to re-connect motors to meet any condition of voltage, phase, frequency and speed.
4. They give you suggestions for preventing electrical machinery troubles.
5. They cover fully the re-winding of motors.
6. They present information that will help you get better service out of your electrical equipment.
7. They give you tables, data, kniks that you will find of priceless value every day on every job, if you are concerned in any way with the care and repair of electrical machinery.

Sent on approval—No money down only $4.00 in ten days and $4.00 monthly for three months

See these books for yourself. Test them out. Use them on the job for ten days, FREE. See coupon for details.

FREE EXAMINATION COUPON

McGraw-Hill Book Company, Inc., 370 Seventh Ave., New York.

You may send me the six volumes of the Electrical Repairman's Library on approval for 10 days' examination. I agree to return the books postpaid in 10 days or to remit $4.00 then, and $4.00 per month for 3 months.

.....I am a regular subscriber to Electrical Merchandising

Signed .....
(Please print)

Address .....

Official Position .....

Name of Company .....

(Books sent on approval to retail purchasers in U. S. and Canada only.)
E.M. 12-1-22

HOLIDAY SELLERS

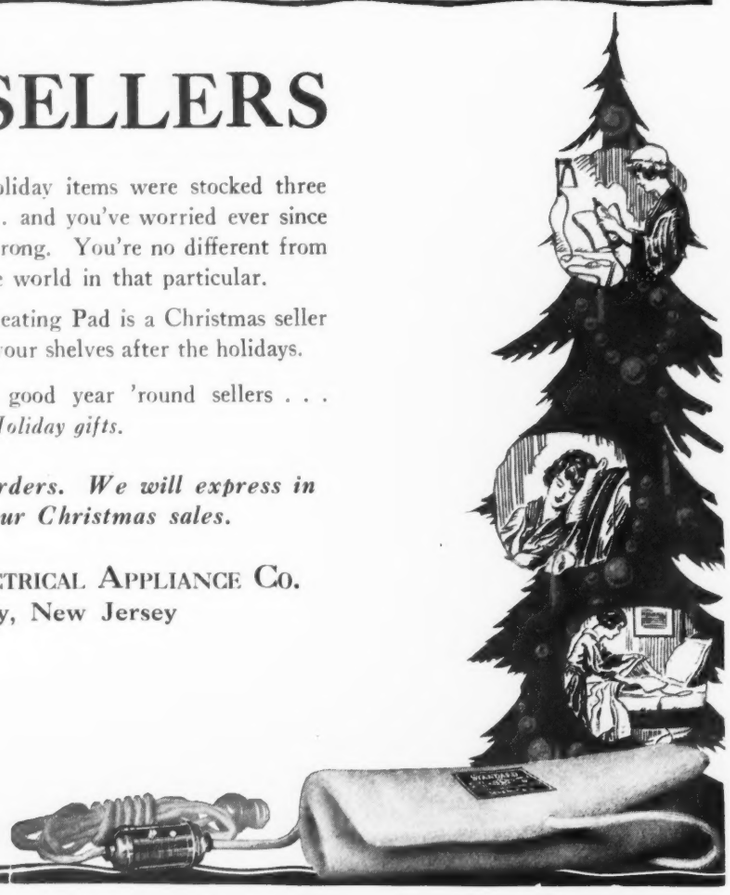
MOST of your holiday items were stocked three months ago . . . and you've worried ever since for fear you guessed wrong. You're no different from the biggest store in the world in that particular.

But the "Standard" Heating Pad is a Christmas seller that won't be dead on your shelves after the holidays.

"Standard" Pads are good year 'round sellers . . . *and they're ideal for Holiday gifts.*

So wire us your orders. We will express in time for your Christmas sales.

STANDARD ELECTRICAL APPLIANCE CO.
Beverly, New Jersey



Standard
the Pad Dependable



Here's the Most Profitable Electric Specialty on the Market Today

You should have a "Lady-Maid" Electric Serving Table and Tea Wagon on display in your store during the Xmas buying season.

It makes an ideal gift and will also help you sell more appliances.

The "Lady-Maid" is a beautiful piece of electric furniture. It is provided with three convenience outlets and a compartment where appliances can be kept when not in use.

"Lady-Maid" will surely increase the sales and profits of dealers who feature it this Xmas.

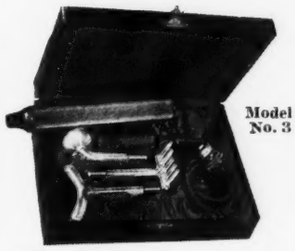
There's still time to order for Xmas business
Write or wire us today for details

Nichols Electric Furniture Co.
Bennington, Vermont

Lady-Maid
Electric Serving Table and Tea Wagon

Last Call for Xmas Orders

Sell the Super-Marvel



Model No. 3

"You can pay more but you can't get better"

At $12.50 list, the Super-marvel represents the greatest violet ray value ever offered. Supplied complete in a beautiful silk-lined carrying case. Three electrodes. Best quality cord and separable plug. Plan now to feature it in your store around Xmas Time.

If your jobber has not the model in stock wire your orders. Immediate shipments. Attractive discounts

$12.50

with three electrodes

Eastern Laboratories, Inc.

227-229 E. 38th St., N. Y. C.

"Tornado" for your Holiday Sales



Wire your orders We will ship by Express

The Tornado makes an ideal Xmas Gift. Being of highly polished nickel it has an unusually attractive appearance making it a ready seller.

Should the heating element ever become broken thru accident it can always be replaced at a very nominal cost.

Retail Price $9.50

worth while discounts

Wire Your Orders NOW

Tornado Electric Co., Inc.

565 Broadway New York

Radio Rex Brings Customers Into Your Store



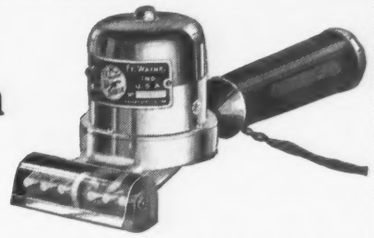
Everybody knows they sell fast. Patented Sound Operated Toy. Speak to it and Rex Jumps out.

Ask your jobber; if he can't supply you write us or wire at once for your Christmas supply. Price to electrical dealers *now*, $16.50 per dozen. Weight per dozen 17 lbs. packed for shipment.

THE JOHN HUGO MFG. CO., 60 Franklin St. New Haven, Conn.

OK Vacuum Brush,

Motor Driven

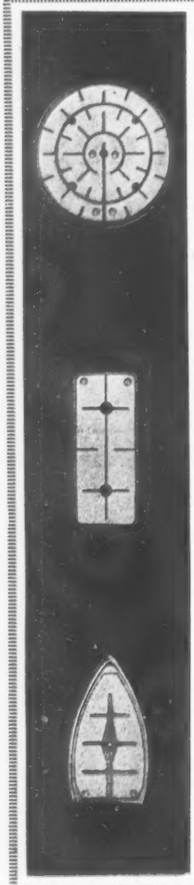


Nothing similar in design or purpose, unlimited field, in the home for cleaning upholstered furniture, clothing, mattresses, tapestry, closed automobiles and pool tables, in dry cleaning plants for removing lint from clothing, etc., etc.

Get our dealer's proposition, some good territory still open.

O. K. MACHINERY CO.

Ft. Wayne, Ind.



How would you build a perfect heating element?

You'd build it to fill these specifications:

1—Insulation infusible and a fine heat conductor.

2—Resistor wire would be moulded in under tremendous pressure so that after firing, a perfect thermal and mechanical unit, free from air gaps, would result.

3—Resistor would be held rigidly in place to prevent movement, open, short or grounded circuits.

4—Resistor comp'etely enclosed and protected from atmospheric conditions and consequent deterioration.

5—The ideal unit should be free from dangerous local "hot spots."

These, you will agree, are the specifications of an ideal heating element. They are also the specifications of *Chromalox* embedded Heating Elements, which together with the method and machinery used in their manufacture are fully protected by United States and foreign patents.

We are in a position to supply *Chromalox* Elements in any size, shape, heat distribution, capacity or voltage. Let us submit estimates and a sample element for your appliances.

Edwin L. Wiegand Co.
Manufacturer and Patentee
Pittsburgh, Pa.

CHROMALOX
HEATING ELEMENTS
Durable *Efficient*



If you don't know the SHANK then you don't know Dishwashers

Obstacles that have stood in the way of dishwasher sales are actually overcome in the Shank. It is a thoroughly reliable machine that washes clean and stays sold. Rinses and Sterilizes.

We want to show a few selected dealers how good a dishwasher can be if it is designed right and made right.

We have a real Dishwasher for you to sell. It has made good in this territory and it will make good in yours. Write for particulars today.

CYRUS SHANK COMPANY
625 Jackson Blvd., Chicago, Ill.



This Demonstration

Sells the **CADILLAC** **ELECTRIC VACUUM CLEANER**

Send for sample CADILLAC Nap Insurance Policy and ask for details of our offer to furnish the Cadillac Demonstrating Table *without cost to you.*

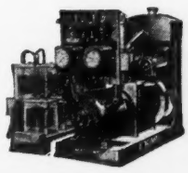
CLEMENTS MFG. CO.
615 Fulton St., Chicago

Holiday
Electric
Dishwasher

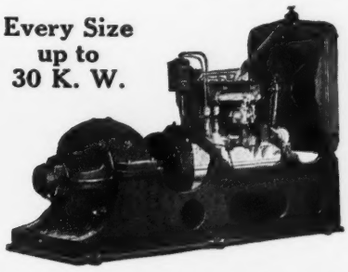
The first successful household electric dishwasher is to be manufactured and sold by the Appliance Division of the General Railway Signal Co. of Rochester, New York, a company widely and favorably known for the excellence of its products.

We refer to the above Company all who desire further information regarding the "Holiday."

KNOX MOTORS ASSOCIATES
Springfield, Mass., U. S. A.



Every Size up to 30 K. W.



$395 Up

World's Most Complete Line of Individual Light and Power Plants

MATTHEWS Full Automatic electric light and power plants are available in popular small sizes and many large sizes—small enough for the most modest needs, or large enough for public institutions, villages, construction camps, summer resorts, county fairs; special types for marine use.

A Complete Line MATTHEWS plants are made for direct or alternating current; for 32, 110 or 220 volts; in capacities from 15 lamps to 30 kilowatts; for use with or without battery.

Full Automatic MATTHEWS Full Automatic plants start and stop themselves. Keep the battery charged automatically, and automatically keep it from being run down.

Built To Endure MATTHEWS plants are built to give dependable, care-free service year after year. Their high quality of workmanship and materials makes them a permanent investment.

Profits from Many Sources MATTHEWS Full Automatic plants, because of their wide variety of types and sizes—and because of their dependable performance under all conditions — offer unusual sales opportunities. Write at once for complete information on how you can make money selling MATTHEWS plants.

MATTHEWS ENGINEERING CO.
1001 Monroe St., Sandusky, Ohio

Matthews
Full Automatic
ELECTRIC LIGHT AND POWER



Yes! We Can Express Them!



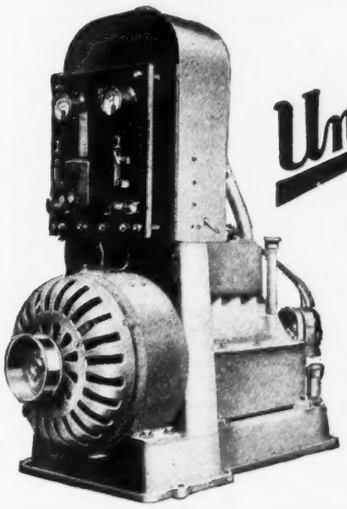
Don't let railroad conditions interfere with your selling

Madmar Toy Motors

We can fill last minute orders by express. The Madmar Toy Motor is a leader for holiday business. Stock it and display it, NOW.

We have an offer that cannot fail to interest you. We also have an agency proposition that is attractive. Please remember—we can express your order now—in time for Xmas sales.

Madmar Quality Co., Utica, N. Y.



Universal

Four Cylinder Electric Plants

With or without Storage Batteries

Sizes and types for all requirements from the average farm up to small town Lighting

Unimote 2-KW Size

Electrical Dealers Find the Universal Line to be a Money-Maker

In the first place, UNIVERSAL Four-Cylinder Plants are strictly quality products. They are simple in design and of sturdy construction built to give dependable service over a long period of years.

Then, too, the Universal line is complete. There is a size and type plant suitable for practically all requirements from the average farm up to small town lighting.

Factory co-operation, liberal discounts, and our easy deferred payment plan reduce sales resistance to a minimum.

Some territory available for substantial dealers.

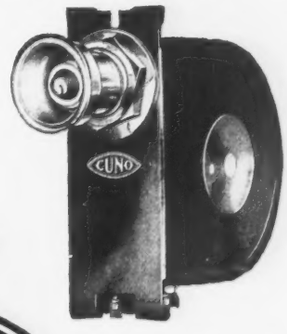
Write Today for Complete Information.

UNIVERSAL MOTOR CO., Oshkosh, Wis.

Not connected with any other firm using the name "Universal"

The Ideal Christmas Gift

ELECTRICAL DEALERS will find real selling points and a quick turnover with





INSTRUMENT BOARD LIGHTER
Price $8.00

AUTO CIGAR LIGHTERS

THE handy, reliable electric cigar lighter for any instrument board. Easy to install. Connects to the storage battery of any car—costs nothing to operate.

Special Holiday Greeting package and attractive sales helps. Write for selling plan.

THE CUNO ENGINEERING CORP.
60 Vine Street, Meriden, Conn.
Makers of High Grade Automotive Equipment

"ALPHADUCT"



"ALPHADUCT" is preferred above all other Conduits, Metallic or Non-Metallic, for protecting the Electric Wires connecting Battery, Generator, Lamps, etc. in Automobiles, Motor Trucks, Electric Railway Cars and similar situations, since besides holding the moisture from reaching the wires, its Exclusive Heavily Glued Cotton Duck Member holds back as well the oils and grease from reaching the insulation on the wires, which when other conduits are used is sooner damaged thereby and short-circuiting occurs.

Non-Metallic Conduit is preferable to Metal Conduits rigid or flexible, for it is more quiet, avoiding the rattle of the metal types, and when a leak of electricity does occur in the insulation on the wires one is saved an electrical shock often when looking for trouble.

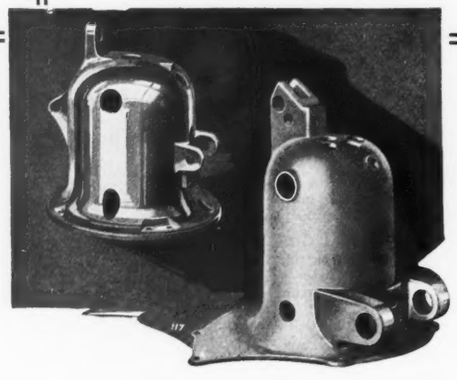
MARKING
Yellow thread in or back of lining

ALPHADUCT CO.
Jersey City, N. J.

DOEHLER
The World's Largest Producer of
DIE-CASTINGS

To turn out a product that is right in every detail is only one part of the responsibility of the reputable producer of die-castings. He is equally obligated to render his prospective customer expert assistance in designing his parts and later in using them to best advantage. Here is where experience reveals its highest value. And the unequalled experience of Doehler, growing out of his business as the world's largest producer of die-castings, enables him to render a service to his customers which assures them the maximum return on their investment in Doehler Die-Castings. Where a customer is willing to avail himself of Doehler experience, he is doubly assured of satisfaction and profit from the adoption of die-castings.

DOEHLER DIE-CASTING CO.
BROOKLYN, N.Y.
CHICAGO, ILL. TOLEDO, OHIO.



Doehler Die-Cast
Vacuum Cleaner Motor Housings

SPLICING COMPOUND TRADE APRUB MARK

We Built Our Business on Quality

Aprub Splicing Compound

O.K. Black Friction Tape

Our Prices are Right

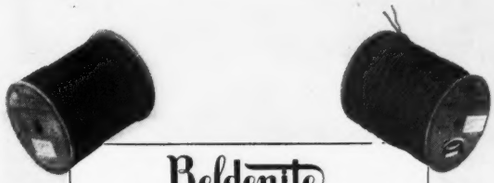
Get it from your Jobber

Appleton Rubber Co.

Office
185 Summer St.
Boston, Mass.

Works
Franklin
Mass.

BLACK FRICTION TRADE "O.K." MARK TAPE



Beldenite TRADE MARK

Why on Fibre Spools?

We originated their use for these reasons:

Attractive display means increased sales.

Cord is always clean and fresh—does not kink or break. Minimum handling saves customer's time and yours.

Belden Manufacturing Co.
Electrical Wire, Cable and Cordage
2300 S. Western Ave., Chicago
Magnet Wire and Tape Dept.
4625 W. Van Buren St., Chicago
Eastern Office and Warehouse: METUCHEN, N. J.



Repeat That Last Order!

SIGNAL

That's What You Hear

when you have once put SIGNAL PRODUCTS into the hands of your customers.

SIGNAL PRODUCTS give satisfaction because there are years of experienced handicraft in them—they are made by men who have grown up in the manufacture of electrical goods.

The are finished—outside to sell—inside to serve.

That kind of goods, brings *your* customers back for more.



Signal Porcelain Housed Transformer



Signal Iron Box Bells

The SIGNAL line includes:

Telegraph Instruments
Bells—Buzzers
Transformers
Battery Chargers
Medical Batteries
Radio Equipment

Sell SIGNAL and you sell sure satisfaction.

SIGNAL Electric Mfg. Co.

Factory and General Offices
1902 Broadway, Menominee, Mich.

Atlanta, Montreal, Boston, New York, Cleveland, Pittsburgh, Chicago, St. Louis, Minneapolis, San Francisco, Toronto

You'll find our branch offices in the Telephone Directory

Bulletin Coupon

Signal Electric Mfg. Co., 1902 Broadway, Menominee, Mich.

Please send Bulletins as indicated by X below, to name and address written in the margin of this page.

☐ Radio Equipment.
☐ Bells and Buzzers.
☐ Medical Batteries.
☐ Bell Ringing Transformer
☐ Battery Charger.
☐ Telegraph Instruments.

(1913)



Two brochures published in the interests of Architects and Engineers

Holtzer-Cabot

Signaling and Protective Systems

For Hospitals, Industrial Buildings, Hotels, Schools, Factories, Etc.

The Holtzer-Cabot reputation of forty years' successful manufacture of electrical equipment is a very real protection.

The leading Architects and Engineers of the country have always recognized this 100% efficiency.

Holtzer-Cabot installations are remarkable for many original features which are absolutely exclusive.

Simplicity, accessibility and low cost of maintenance are reasons why Holtzer-Cabot systems are a valuable investment.

In specifying Holtzer-Cabot products, you are specifying service over an indefinitely prolonged period—a period where up-keep is reduced to a minimum and where service is increased to a maximum.

Architects and engineers are invited to write for the brochures illustrated above which give detailed information of the types of signal systems we make.

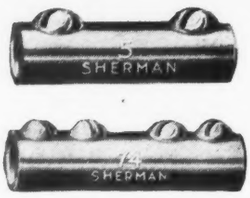
The Holtzer-Cabot Electric Co.

Electric Signaling Systems

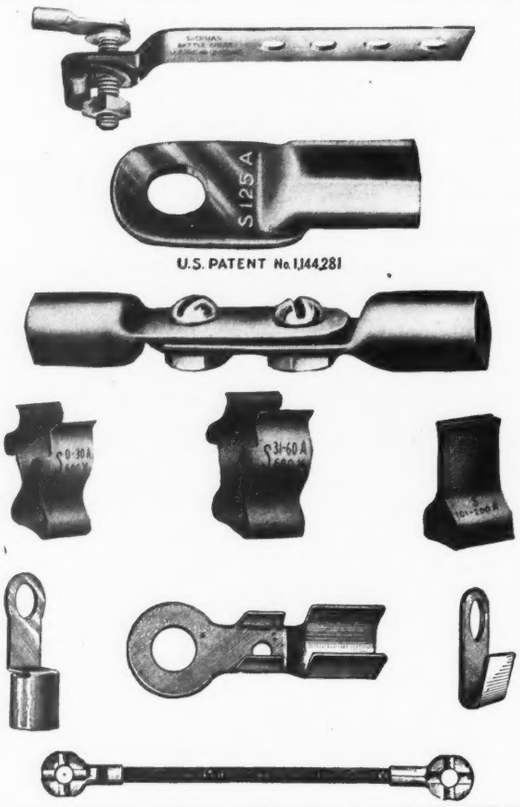
HOME OFFICE AND FACTORY:
125 Amory St., Boston, Mass.

BRANCH OFFICES:
Chicago, Ill., 616-65 So. State St. Philadelphia, Pa., 807 Otis Bldg.
New York, N. Y., 101 Park Ave. Detroit, Mich., 1051 Book Bldg.
Cleveland, Ohio, 517 Union Building
Baltimore, Md., 1104 Union Trust Bldg.
San Francisco, Cal., 408 Claus Spreckles Bldg.
Minneapolis, Minn., 627 Metropolitan Life Bldg.

SHERMAN
Standard Products



Sherman Set Screw Connectors have four distinctive features: (1) Each connector is plainly stamped with a number. (2) The screws are heavily galvanized. (3) All dimensions and proportions are held to accurate size. (4) They are neatly boxed and plainly labeled.



Sherman Products have been the standard in their respective fields for the past twenty-five years. Each article is produced in the most modern way, to sell at the lowest possible cost. Real dependability is the aim of Sherman engineers. They realize that only dependable goods can stand the test of time and competition.

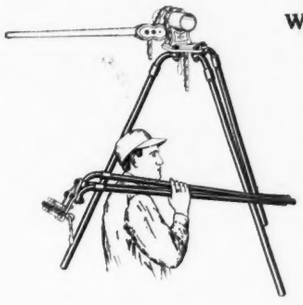
H. B. Sherman Mfg. Co.
Battle Creek Michigan

WILLIAMS' "VULCAN"
Drop-Forged
CHAIN PIPE VISE



The only Pipe Vise made entirely of wrought steel.

Light, Compact, Strong and Efficient. Can be easily carried by hand. No. 1, for ⅛ to 2 in. Pipe, weighs only 4 lbs.; 2 larger sizes.



WILLIAMS' "VULCAN" PIPE-VISE MOUNT

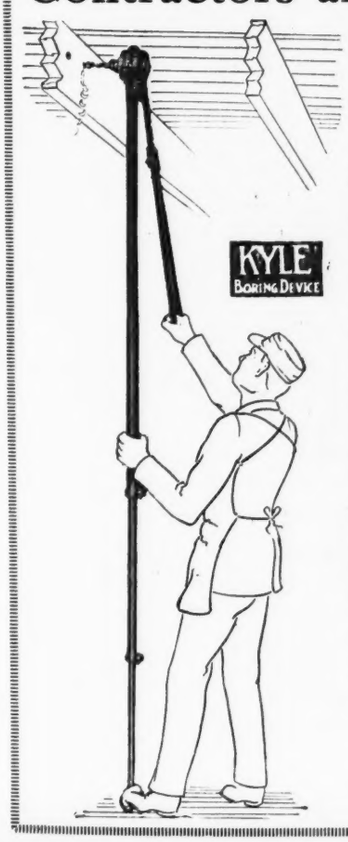
Provides a simple, firm and portable support for "Vulcan" Vises. Its advantages and convenience to all Electrical Workers using pipe are self-evident.

Literature on request

J. H. WILLIAMS & CO.
"The Drop-Forging People"

BROOKLYN 212 Richards St. | BUFFALO 212 Vulcan St. | CHICAGO 1212 W. 120th St

Contractors and Dealers



"Get a Kyle on the Job"

The Boring Machine

that saves its cost on one job by eliminating waste, time and labor. THE KYLE IS FREE FROM BUNGLESOME CHAINS—adjustable from 4½ to 13½ ft. LITERATURE SENT UPON REQUEST.

Illustration shows improved machine with many new features.

You can now have this money making tool at pre-war price.

A User Writes—

"Please ship at once one Kyle Boring Machine. I have had one for three years and it has given great satisfaction."

Order a Kyle today from your jobber or from us direct, giving us your jobber's name.

The Hykon Mfg. Company
ALLIANCE, OHIO

GARFIELD INSULATION

GUMMON
REG. U.S. PAT. OFF.



Cold Molded Insulation is essential to quality production of Electrical Devices.

"GUMMON" is the standard and original Cold Molded Insulation made by the oldest and largest producer. Continuously improved to meet increasingly exacting requirements.

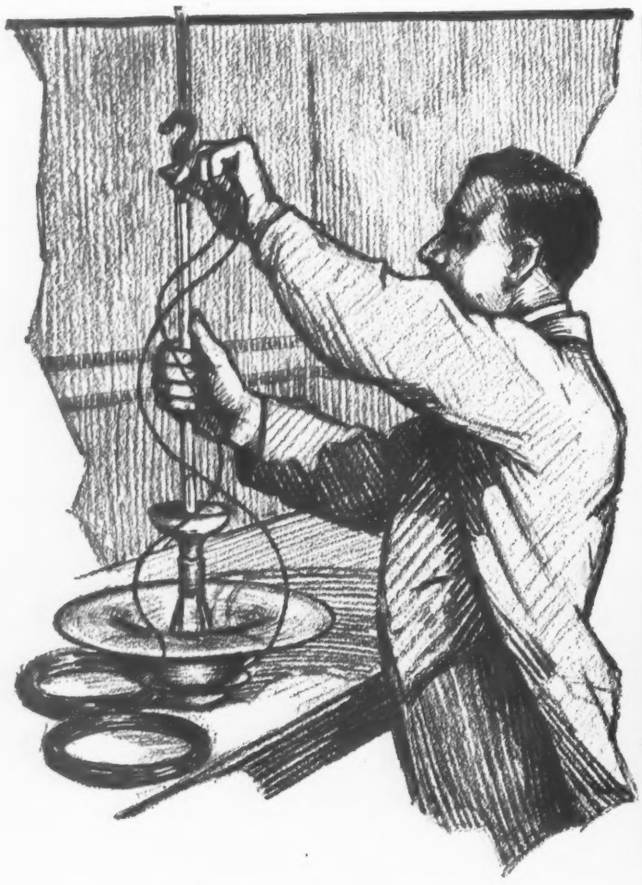
Why experiment when you can get "GUMMON" plus service and knowledge developed by long experience?

Get our booklet. It will pay you to know Garfield Insulation.

FIREPROOF HEMIT INSULATION

(EGI)

Garfield Manufacturing Company
Garfield, N. J.



Colorbeston

the asbestos-insulated fixture wire

Here is a perfect, heat-proof wire for wiring fixtures. Its insulation is all-asbestos and contains no rubber or combustible material. This feature is particularly valuable when fixtures are used for high-wattage gas-filled lamps.

Colorbeston fixture wire is a Deltabeston product insulated with fibrous asbestos, impregnated to resist moisture and applied to the wire in such a manner as to leave no openings such as are sometimes found in braided yarn coverings. The insulation is tough and will not scale, yet it is very flexible and is glazed to slide easily.

Colorbeston fixture wire comes in six permanent colors to match standard fixture finishes.

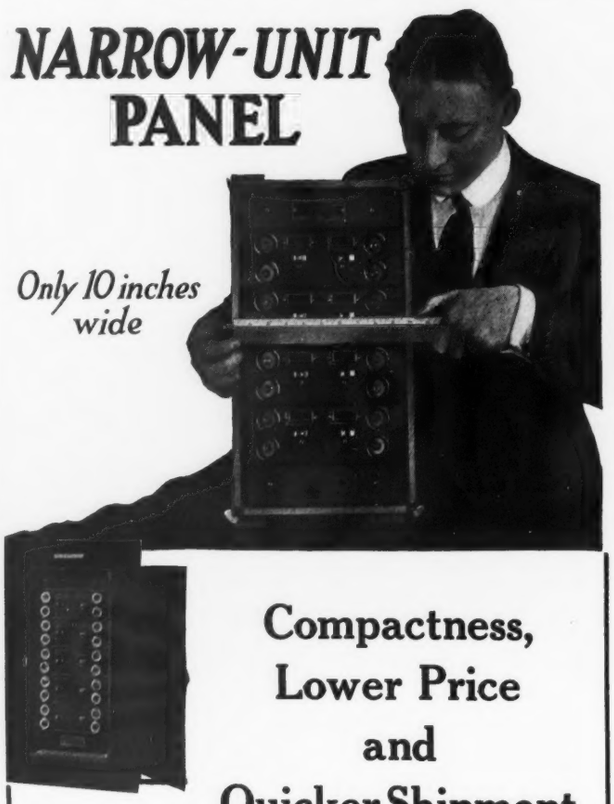
Send for a handy sample card

Wire Division
of General Electric Company
Schenectady, N.Y.

D.W.D.-52X

THE NEW SPRAGUE

NARROW-UNIT PANEL



Compactness, Lower Price and Quicker Shipment

These Three Features Characterize the New Sprague *NARROW-UNIT* Design.

It is extremely neat in appearance and embodies that high degree of serviceability which has so long distinguished other types of Sprague Panels.

Ask today for our descriptive Bulletin No. 67900

SPRAGUE ELECTRIC WORKS
Of General Electric Company
Main Offices 527 W. 34th St. New York
Branch Offices in Principal Cities



DO YOU OWN A MARTIN?

If you do—you are saving Labor, time and money. If you don't—Let us "tip you off" to a

PORTABLE VISE STAND

That weighs but 50 lbs.

That stands without hitching.

That is set up and taken down in a jiffy.

The *Martin Portable Vise Stand* bends conduit without kinking—the strong steady base makes it a "cinch" to cut strong, true threads—Well—you simply *must* have a "Martin."

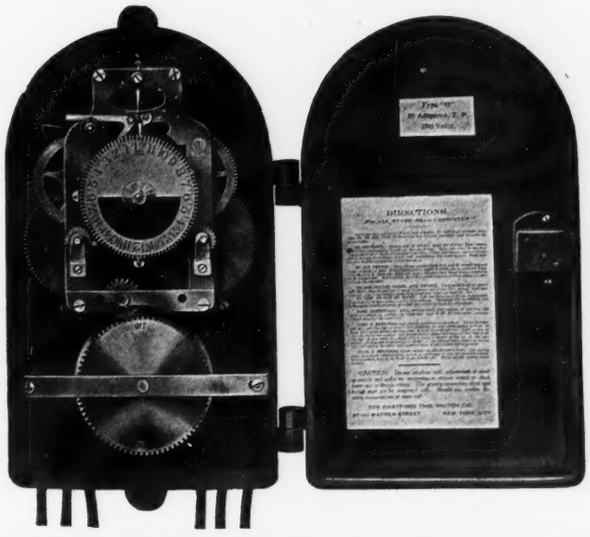
Here's our Free Trial Offer

To any established contractor-dealer who will write us on his letterhead, we will ship a Martin Portable Vise Stand. This stand may be tested and used for 10 days free. At the end of that time if it has failed to fully demonstrate its value, it may be returned to us, shipping charges collect.

Avail yourself of this liberal offer now.

H. P. MARTIN & SONS
621 East 2nd St., Owensboro, Ky.

HARTFORD
TIME SWITCHES

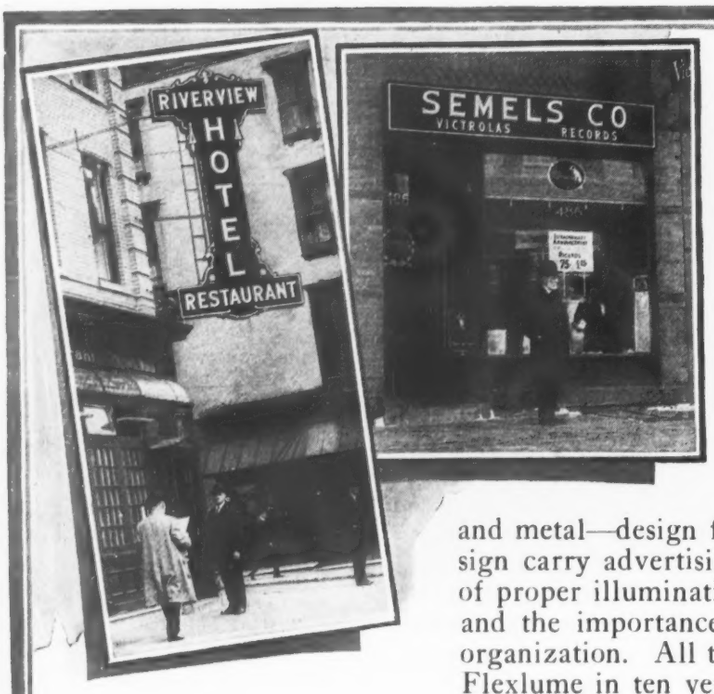


have maintained their supremacy and their reputation for lasting, dependable service for a quarter of a century.

You can always get a type of Hartford Time Switch in just the right capacity for every practical time switch service.

New prices and discounts, recently effective, afford better profits for you.

A. HALL BERRY
Sales Representative
71-73 Murray St., N. Y. C.



Flexlume Signs

For more than ten years, the Flexlume Corporation has been learning how to make electric signs draw business.

There is more to it than glass and metal—design for instance, the art of making the sign carry advertising thought. There is the science of proper illumination, the right kind of construction, and the importance of having a nation-wide service organization. All these points have been perfected by Flexlume in ten years of specializing on a particular type of sign.

Let us send you a sketch showing a Flexlume for *your* business.

Flexlume Corporation
28 Kail St., Buffalo, N. Y.

FLEXLUME CORPORATION

Austin Line Box Connectors

The new Austin "Loxall" Box Connector has become one of the most popular styles on the market. It is very simple to install, and a few turns with the screw driver positively locks the armored cable so that it is securely held in place and will not work loose from vibration, etc. The inside opening is 11/16-inch and will, therefore, take all sizes armored conductors and flexible metallic conduits whose outside diameter is 11/16-inch or smaller. They are carefully galvanized and the clean-cut threads run up to the shoulder.



Austin Squeeze Type Straight Box Connector



The simple, practical Austin Wedge Type Straight Connector

Below is shown the Austin Duplex Box Connector



New Way **Old Way**

The Austin Line

The Austin Line includes all types of box connectors as well as other fittings and specialities for every wiring need.

Austin Duplex Squeeze Type Box Connector saves time and labor and eliminates waste of material. The use of this connector brings two armored cables into the same knockout.

The other types of connectors shown here, each a proven Austin design, are completely described in the new Austin Red Book catalogue. Send for a copy today and have it handy for reference.



Loxall Type



Austin Squeeze Type Angle Box Connector

The M. B. Austin Company
108-116 S. Desplaines St., Chicago, Ill.

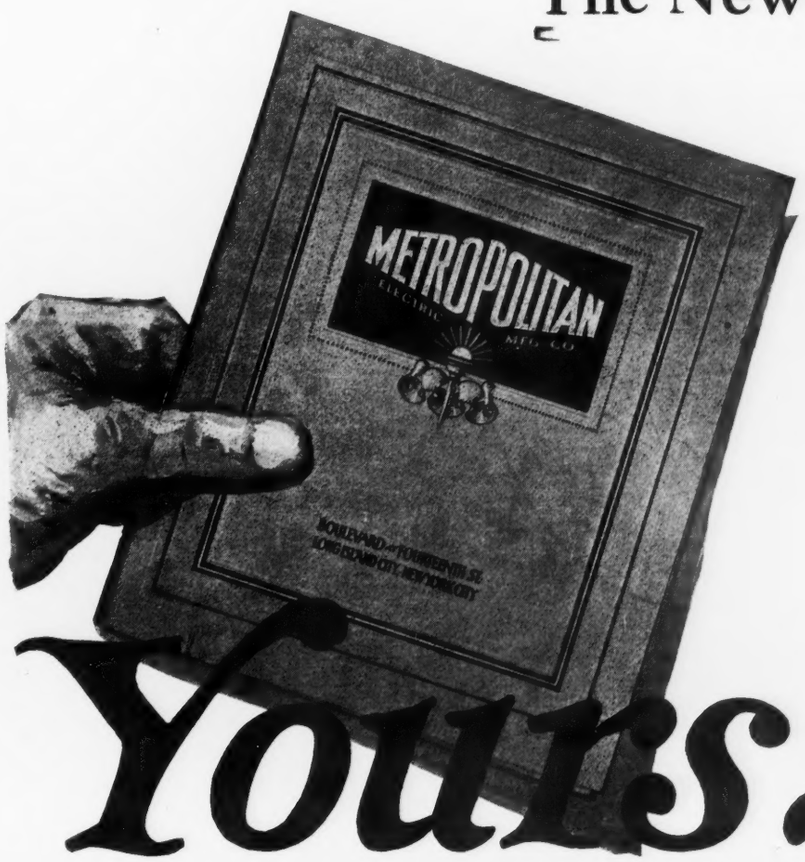


The New Catalog No. 24

Gives you all the "dope" on

Standard Panels
Metering Panels
Iron Boxes
Fuses
State Base Fuse Blocks
Push Button Switches and Receptacles
Knife Switches
Special Switches
Safety Switches
Accessories
Switchboards

If you have not already received your copy, write for it now.



Yours!

Metropolitan Electric Mfg. Company

R. B. Corey Company, Inc.
1170 Broadway
New York City

AUTOMATIC CONTROL
Accurate and Reliable

New standards of accuracy, simplicity and unfailing operation are established by this new method of control.

Think of being able to install an automatic switch for control of electrical devices by temperature or pressure, and being able to forget it from then on.

No maintenance, no adjustments, no attention whatever; yet the Absolute Con-Tac-Tor performs with unfailing exactness at all times.

Standard types are being manufactured, suitable for temperature control in a wide variety of devices. The air temperature type is now being used for control of automatic house heating, electric refrigeration, electric ovens, and similar devices. The immersion type is adapted to the control of liquid heaters, water cooling systems, transformer overload alarms and similar purposes.

Since these controls need no attention or maintenance, their use relieves the dealer of one of the most exasperating service demands—repairs on the old-style thermostats.

Write for bulletins describing the Absolute Con-Tac-Tor and its applications. There is a very attractive business to be had in the installation of these automatic controls.

The Absolute Con-Tac-Tor Corp., Beloit, Wis.

Originators of Non-Deteriorating Mercury Switches

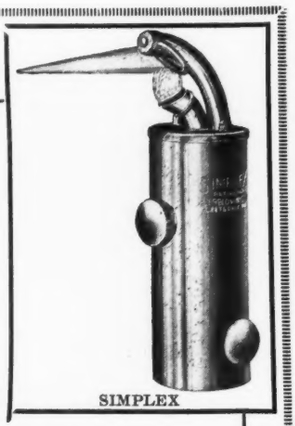
CON-TAC-TOR

Does Its Own Blowing

They All Want One

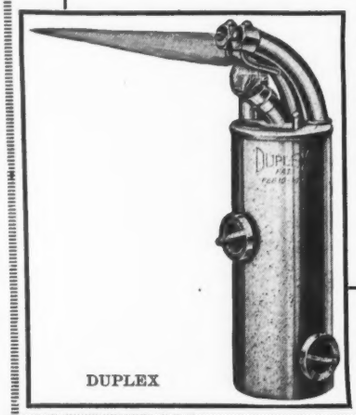
Electricians
Radio Users
Mechanics and Repairmen
Dentists—Jewelers
Laboratory Workers

PEERBLOW



SIMPLEX

Self-Blowing Alcohol Torches



DUPLEX

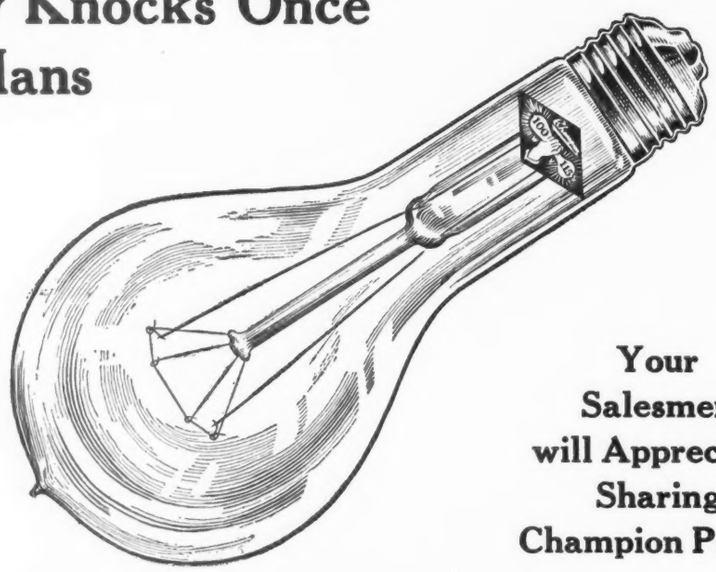
Just let the practical worker set eye on this handy little torch—see it belch forth its own piping hot flame—and the sale is clinched. It is small enough to fit in the pocket. Simple to operate. Nothing to get out of order. Made of brass and nickel-plated. Fully guaranteed. We have attractive window and store cards to help sell these torches for you.

Write for details

Entirely Automatic

Peerblow Mfg. Co.
Leetsdale, Pa.

"Opportunity Knocks Once At Every Mans Door"



Are you the Local Distributor for

Your Salesmen will Appreciate Sharing Champion Profits

CHAMPION LAMPS

MADE BY

CONSOLIDATED ELECTRIC LAMP COMPANY

812 Maple St., DanVers, Mass.

SPLICING COMPOUND CHATTERTON COMPOUND
CLIFTON FRICTION TAPE
QUALITY UNIFORMITY

When Certainty is a Necessity

The man who is having electrical installation work done insists, if he is wise, upon only the best. The contractor realizes this and is protecting himself as well as his customer when he uses

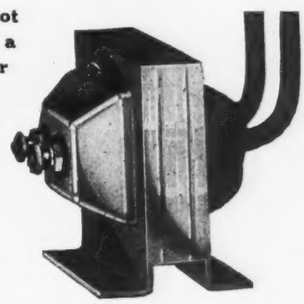
Clifton Friction Tape

of whose uniform adhesiveness and high quality he is sure.

Write for samples and prices.

CLIFTON MFG. CO.
5 Brookside Ave., Boston, 30, Mass.

Will not move a meter



Guaranteed to operate properly

Killark Bell Transformers

With each transformer is packed a guarantee. The purchaser is instructed to return the transformer to *the factory* for replacement if it does not operate properly.

We do not hesitate to give this unlimited guarantee, because the number of transformers returned to our factory is negligible.

KILLARK ELECTRIC MFG. CO.
St. Louis, Mo.

RUBBER INSULATED WIRES AND CABLES

National Electrical Code Standard
Intermediate (Red) Thirty Per Cent

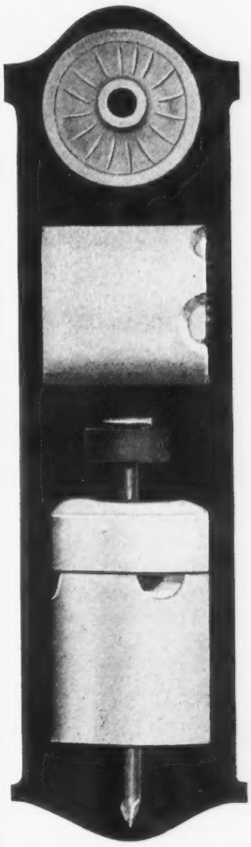
Wire built under the direct supervision of experienced engineers, skillfully and honestly manufactured with one purpose and result.

Continuous Service

A-A WIRE CO., Inc.
General Sales Offices: 50 East 42nd St., New York City

Branch Office: The Sloan Bldg., Cleveland, Ohio

Factory: Newark, N. J.



Your Nearest Jobber Will Supply You

Wedge
5½ New Code
Split Knobs
(Patented)
Nail Assembled Knobs

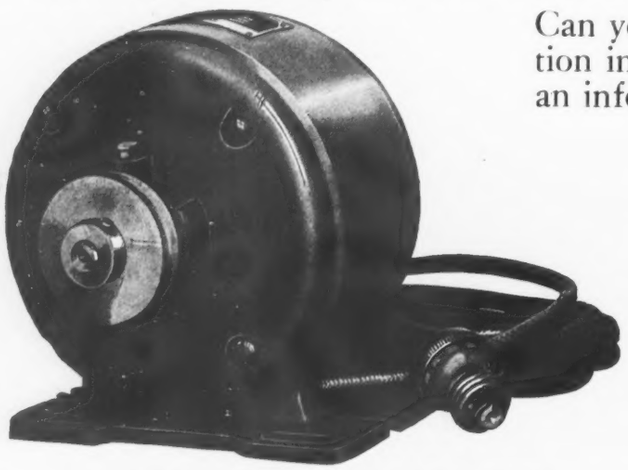
Why not drop us a postal today and let us send you samples?

Cook Pottery Co.
Trenton, N. J.

Boston Office—10 High St.
Chicago Office: 564 West Monroe St.
Cleveland Office: 514 Bangor Bldg.

OHIO Ball Bearing Motors

A household appliance that does its work well and gives no trouble is your best advertisement. The motor is the most delicate part of your machine and runs at the highest speed. Each motor trouble adds to service expense and spoils several other sales prospects.



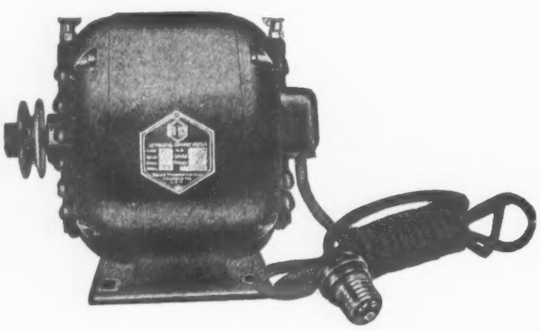
Completely Equipped Motor showing Pulley, Slotted Base and Flexible Cord with Attachment Plug.

Can you afford to risk your reputation in any neighborhood by using an inferior motor?

The Ohio Motor is well ventilated; protected from mechanical injury; has a simple, strong, durable Starting Switch; is equipped with finest ball bearings, which eliminate lubrication troubles, and each motor is carefully tested and inspected.

THE OHIO ELECTRIC & CONTROLLER CO.

Cleveland, O.



A Reliable Small Motor

In cold weather and hot weather, under difficult service conditions or not, the H-G Small Motor has established a splendid reputation for an unvaryingly high degree of satisfactory performance.

For the continuous and efficient operation of a motor-driven appliance, or for the many small tasks to which a fractional Hp. motor is adapted —you may safely put your full confidence in the H-G Small Motor.

H-G

The Sign of a Good Motor

Write us for Particulars and Prices

Galvin Electric Mfg. Co.

formerly the H-G Mfg. Co.

1215 Pine St., St. Louis, Mo.

Bob Saves Dave Trouble

Warns Him to Buy SELFBLO

By Trade-Mark Name



Retails for $2.00
In Canada $2.50

"That's some Torch you're using, Bob. Let's see it."

"Sure is, Dave! It's a SELFBLO Alcohol Torch. Beats any old-style blow torch forty ways. You noticed how quickly it got started. In 20 seconds after lighting it blows an intensively hot flame, without any bother or time lost in blowing and priming with a rubber tube."

"It certainly is good, Bob. I'll get me one."

"When you do, Dave, be sure to ask for it by the trade-mark name SELFBLO. Don't be fooled into getting a poor imitation. The makers have trade-marked it and stamped the name S-E-L-F-B-L-O on every Torch to protect us fellows."

"Thanks, Bob, I'll remember."

Our National Consumer advertising is done to help you, Mr. Dealer. Trade-mark goods protect you and assure you of satisfied customers. The name SELFBLO is our guarantee to you of Quality and Service. Order six SELFBLOS by name from your jobber. They come packed in a handsome three-color counter display container, or write us direct for literature and prices. Order by trade-mark name—SELFBLO. Our guarantee is your protection.

Hunt-Lasher Co., Inc., 66 Willow St., Lynn, Mass.

Successors to the good will, trade names, trade marks, formulae, etc., of the Federal Mfg. Co., of Boston, Mass.

Southern Representatives: Wetherbee Bros., 1405 Englewood Ave., Dallas, Texas.

Western Representatives: Graf Sales Co., 304-310 Williams Bldg., San Francisco, Cal.

Middle West Representatives: L. W. Stewart Sales Co., 327 Dixie Terminal, Cincinnati, O.

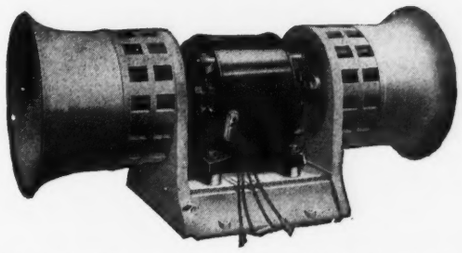
Canadian Representatives: Walkley-Moncur Co., Ltd., 416 St. James St., Montreal, Canada.

Operated by Remote Control

Century

Repulsion Start Induction

SINGLE PHASE MOTORS



1 H.P. motor direct connected to siren used as a warning signal

They have demonstrated their ability to operate satisfactorily when controlled at a distance by push button, solenoid, float or pressure switches located where convenient.

1/8 to 40 H.P.

Temperature rise not more than 40° C.

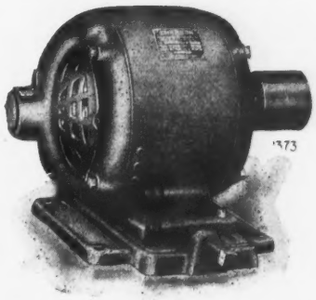
Century Electric Company

St. Louis, Mo., U. S. A.

Sales Offices in Principal Cities

Emerson Motors

—2 hp. and Smaller—



A.C. and D.C. Types are Physically Interchangeable

THIS is an important feature of the Emerson line. A.C. and D.C. motors of the same rating and speeds are identical in all important dimensions.

—A decided advantage when equipping motor appliances.

Large stock carried in St. Louis and New York and by many jobbers.

The Emerson Electric Mfg. Co.

2018 Washington Ave., St. Louis, Mo.

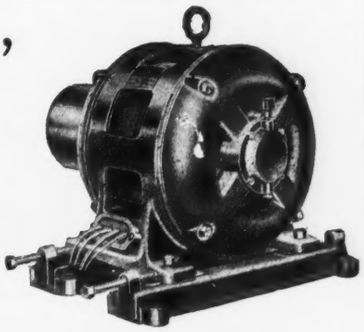
50 Church Street, New York City

The "STAR"

For A. C. and D. C.

Up to 40 H. P.

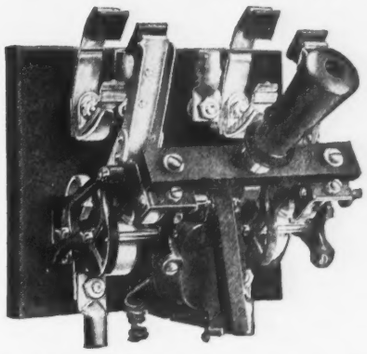
Motors, Generators, Alternators and Motor-Generators in horizontal and vertical types. Ball Bearings, Interpoles, and most modernly designed line.



STAR ELECTRIC MOTOR CO.

Miller Street and N. J. R. R. Avenue, Newark, N. J.

QUALITY IS BEST EXPRESSED IN *SERVICE*



Roller-Smith Industrial Type Circuit Breakers have no "frills and feathers" on them—they are built for work—hard work. They are not polished, but they are simple and sturdy and have the stuff in them to stand the gaff of hard, gruelling, year-in-and-year-out service in industrial plants. Specify

Roller-Smith Industrial Circuit Breakers

Send for Bulletin No. AH-520

ROLLER-SMITH COMPANY

Electrical Instruments, Meters and Circuit Breakers

MAIN OFFICE
18 Park Place, NEW YORK

WORKS
Bethlehem, Penna.

Offices in Principal Cities in U. S. and Canada

DOLPHIN ATLANTIC

DOLPHIN

A code wire of high quality, known for its great dielectric strength and resiliency and used for its dependability and Maximum service. TRITON, high grade, and NEPTUNE extra high grade are other widely known and used Atlantic wires.

ATLANTIC

INSULATED WIRE AND CABLE

COMPANY

Sales Office: 52 Vanderbilt Ave., New York
Factory: Stamford, Conn.
District Sales Office: 419 Perry Bldg., Philadelphia, Pa.

Baltimore, Electrical Sales Co., 2 E. Redwood St.; Boston, A. D. Stein, 156 Purchase St.; Chicago, Geo. C. Richards & Co., 557 W. Monroe St.; Pittsburgh, W. A. McCombs & Co., Keenan Building; St. Paul, Rank & Goodell, Merchants Bank Building; San Francisco, Electric Agencies Co., 56 Natoma St.

FINANCING INSTALMENT ACCOUNTS

Appliance Manufacturers, Jobbers, Dealers

We will furnish all the money you need to develop and maintain a time payment business. We can also help you with bookkeeping details, collection methods, etc.

Republic Finance & Investment Co., Indianapolis, Ind.

A Distinct Help in Building Business

A great deal depends on the kind of banking service you are getting. Is it mechanical, lacking in real interest and in understanding of your problems? Or is it a personal, co-operative and helpful service such as we try to make ours? *Any of OUR officers will be glad to tell you or write you of our Service as applied to your business.*

THE COAL AND IRON NATIONAL BANK

143 Liberty St., New York **Resources $30,000,000**

SWITCHBOARDS PANEL BOARDS

THE PLAINVILLE ELECTRICAL PRODUCTS CO.

PLAINVILLE, CONN.

FUSE-REDUCERS STEEL CABINETS



No. 44

Universal Motor for 110 Volts

Suitable for phonograph drives, drink mixers, sewing machines, small lathes, etc.

Battery motors and small generators our specialty. Send for circular.

LIBERAL DISCOUNTS TO DEALERS

KENDRICK & DAVIS CO.

LEBANON, NEW HAMPSHIRE



"Make Safety Your First Consideration"

PENN

Safety Panels

Manufactured with 20 or 30 Amp. push and tumbler switches and for NEC or Edison plug fuses. Sectional Steel Plates, only two circuits on a plate. Large card holders with neat celluloid cards for every circuit. Substantial brass cylinder blocks with knobs and spring catches. All live parts completely covered.

A line of exceptional quality. Write today for descriptive details and discounts.

Penn Electrical & Mfg. Co.
Irwin, Pa.

Ettco TUBE



A flexible non-metallic conduit of the highest grade

Manufactured by

EASTERN TUBE & TOOL CO., INC.

588-602 Johnson Avenue, Brooklyn, N. Y.

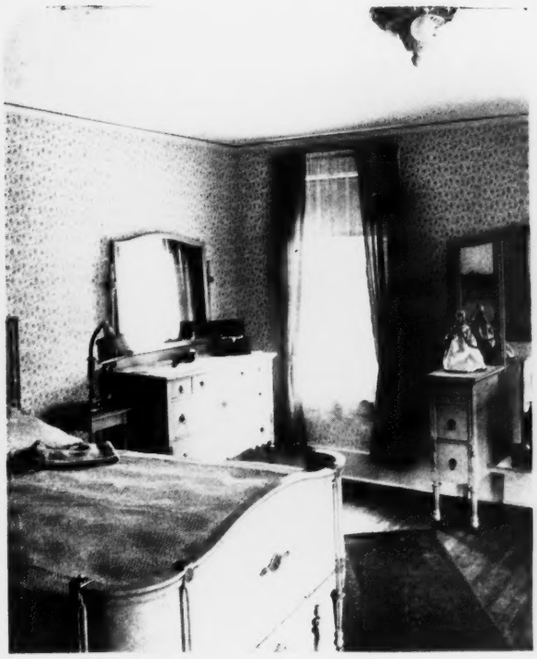


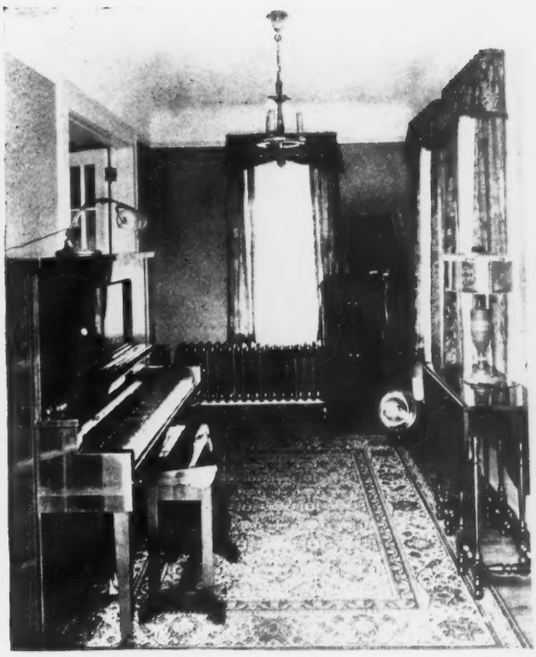
"Opportunity" Advertising:

Think "*SEARCHLIGHT*" First!

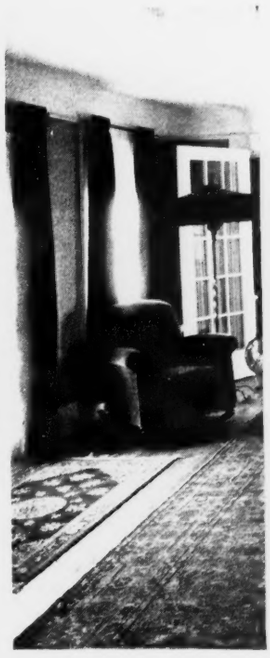
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"Notice the Lighting Equipment"
Wherever You Go

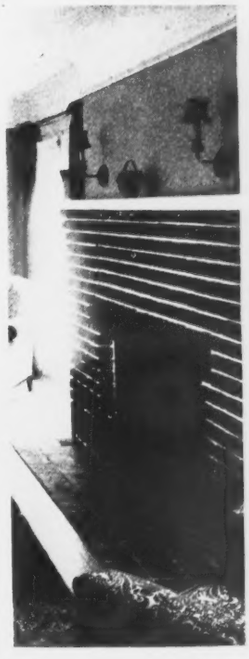


No MATTER where you are, if you keep your eyes open, you will always see chances to improve present lighting installations. Business won't come to you. You will have to go get it. Know where to go, by noticing where new installations are needed or where complete wiring jobs can be sold.

The January issue will contain the latest fixture sales ideas that you can use in getting this business.

If you are not a subscriber don't lose out—order your copy now.

Electrical Merchandising
10th Ave. and 36th St., New York City

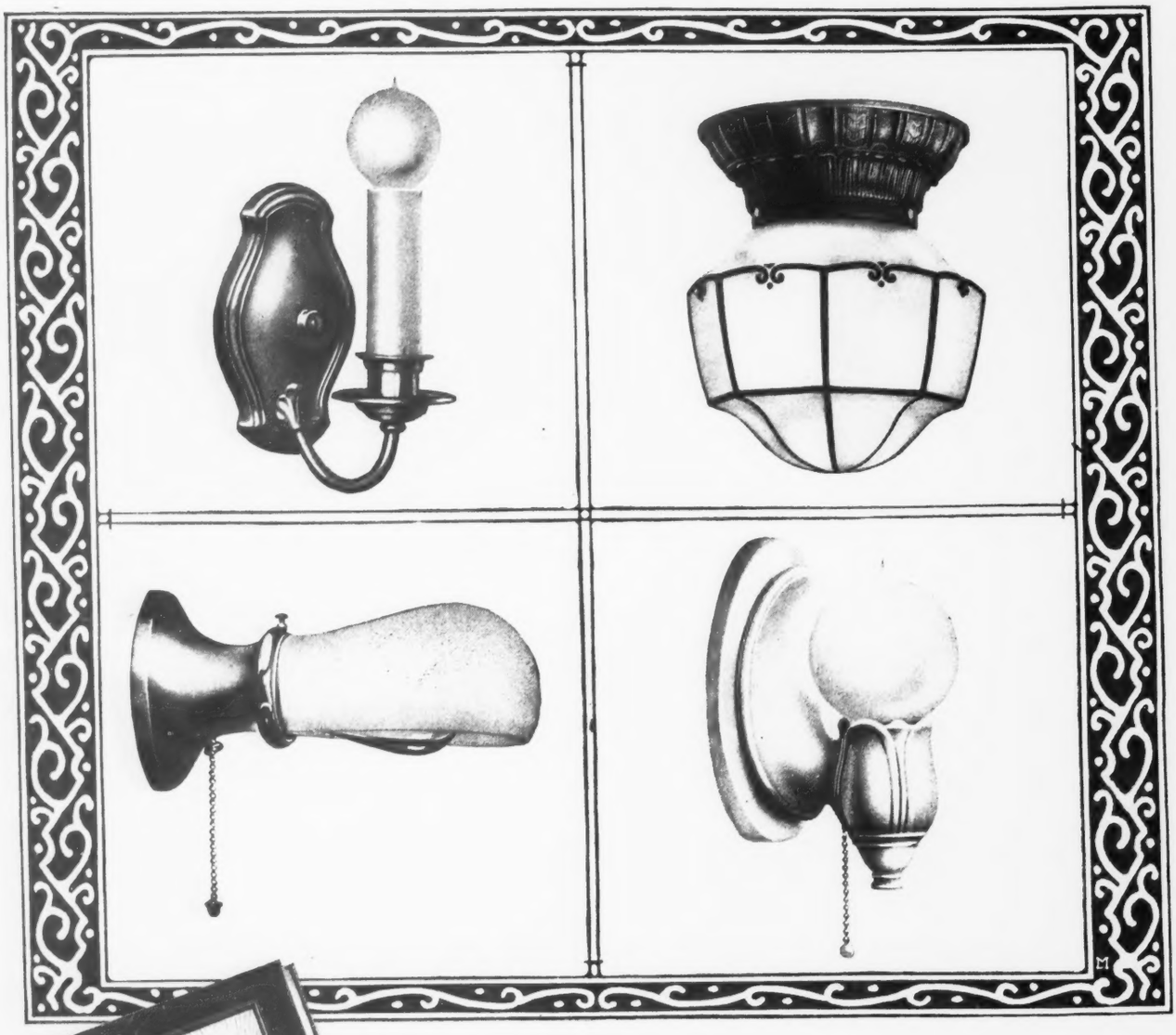




See the January issue

—the Fixture number

Lightoliers—the fixtures you re-order often





Bound in leather. Twelve pages in color, reproduced from oil paintings, showing the actual finishes. 112 pages with nearly 400 illustrations.

WRITE TODAY
for Sales Book "K"

BIGGER TURN-OVER BIGGER PROFIT

Little specials very often swing large orders. The items shown here, together with those in Sales Book "K," enable you to furnish the right light for any place in the home.

Lightolier
COMPANY, N.Y.
569 Broadway at Prince St.
LIGHTING FIXTURE *and*
LAMP HEADQUARTERS

ENTHUSIASM!

Read what Duplexalite Agents say

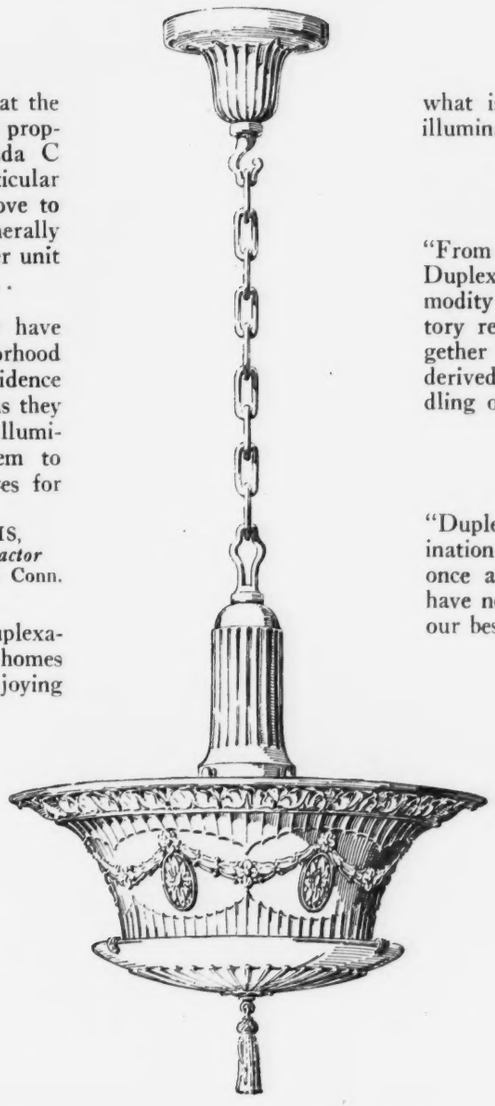
"Our experience has been that the Duplexalite, when installed properly with a correct Mazda C lamp and shade for the particular room in any home, will prove to give better satisfaction generally than if we had sold any other unit from our show room.....

"During the past year we have probably sold in the neighborhood of 100 Duplexalites for residence use and our customers tell us they are well pleased with the illumination and recommend them to their friends as ideal fixtures for the home."

E. S. FRANCIS,
Electrical Contractor
Hartford, Conn.

"Not until the advent of Duplexalite did the people in their homes have the opportunity of enjoying what is now known as scientific illumination."

F. J. LASAR, Mgr.,
F. E. Newbery Electric Co.,
San Francisco, Calif.



"From the dealer's standpoint the Duplexalite is certainly a nice commodity to handle and the satisfactory results given our clients, together with the handsome profit derived from the sale, makes handling of Duplexalites a pleasure."

F. G. BURDORF,
Burdorf Company,
Louisville, Ky.

"Duplexalites give perfect illumination and my experience is that once a person uses them he will have no other fixture and becomes our best advertisement for them."

J. GRINNELL PARRY,
Electragist
Decatur, Ga.

If there is not already a Duplexalite Agent in your city, you have an opportunity to qualify. Write for particulars.

DUPLEX LIGHTING WORKS
of General Electric Company
6 West 48th Street New York City

Duplex-a-lite

"The light to live with"

XMAS GIFTS

Sales of Duplex Lighting Lamps have been going like wildfire

No lamps ever made have been so popular.

Use these lamps as leaders in your Xmas selling. They are *new* and *different*. The public takes to them instantly.

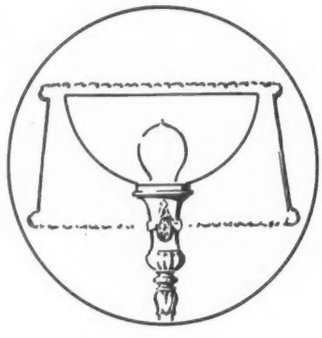
Prices	Dealers' Net Cost (9 or less)	Resale Prices
Duplex Lighting Table Lamp..	$12.50	$22.50
Duplex Lighting Floor Lamp..	26.00	48.00

Silk shades come in old gold, old rose or ecru.

Shipments by express the day order is received



No. L-711, 27 in. high
Dull Antique Brass





No. L-1010, 65 in. high
Antique Brass

Write or telegraph your order NOW, for a quick Xmas turnover

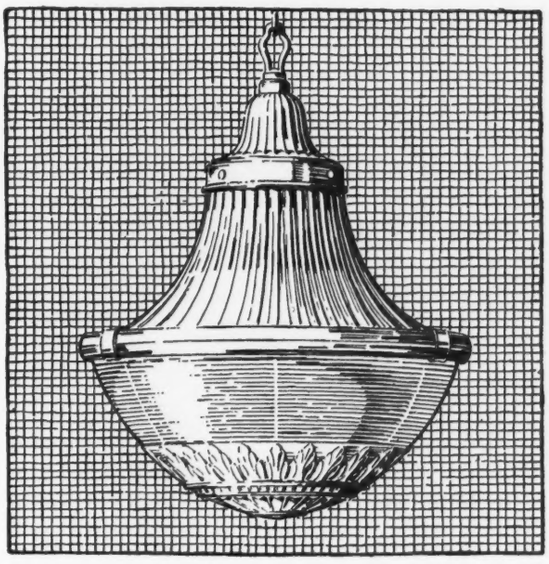
DUPLEX LIGHTING WORKS
OF GENERAL ELECTRIC CO.

DUPLEX LIGHTING
A Necessary Refinement

6 WEST 48th. STREET
NEW YORK CITY

HIGHEST QUALITY

ENCLOSED GLASS UNIT MADE



The Filterlite is new! It is just beginning to take its place in commercial lighting. It marks a new high standard—it stands above anything in enclosed glass previously made.

The output is 82.6%. More than two-thirds is indirect, so there is no glare. Constructed of heavy, pressed, crystal glass, it withstands accidental blows. The Engineers rate it *absolutely* lowest in percentage of possible dust depreciation.

You must know, therefore, what it means to install Filterlites for a customer. It means a new high standard of lighting that is *different* from all the other installations about him.

There is unlimited competition in the various kinds of opal glass—some of which are good, and others of which *look* about the same, but are very poor. In selling Filterlites you cut out this competition. You are selling a "quality" that is *evident*.

Filterlite Agencies are appointed one to a city. Write for particulars.

Manufactured by the Holophane Glass Co., Exclusively for

DUPLEX LIGHTING WORKS
of General Electric Company
6 West 48th Street New York City

Filterlite

CORA-LITES

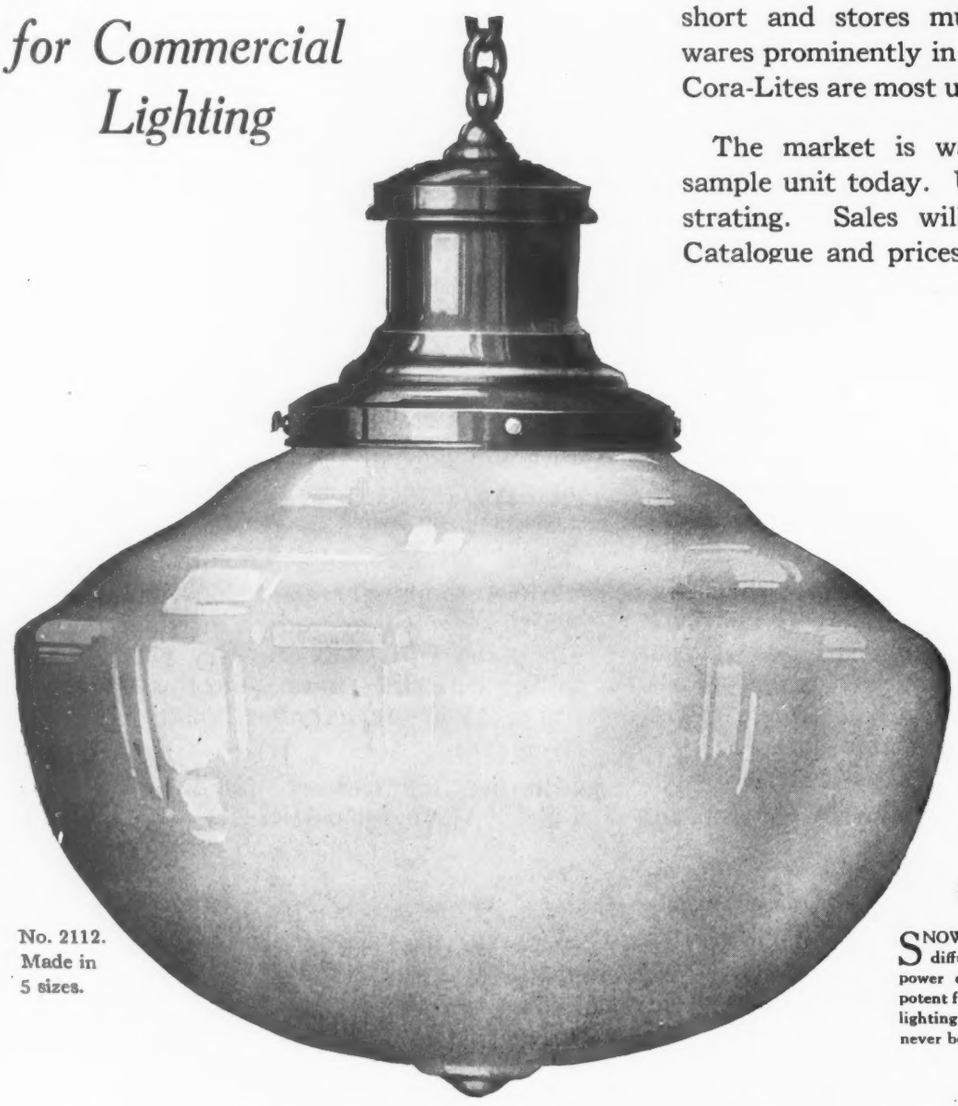
A Sales Beacon

ATTRACTING sales your way—shining through competition, beckoning and leading to the bright path of sales, Cora-Lites are real sales beacons.

Efficiency counts in selling. A demonstration quickly proves the superior efficiency of Cora-Lites. At this particular season, when days are short and stores must display their wares prominently in a favorable light, Cora-Lites are most urgently needed.

The market is waiting. Order a sample unit today. Use it for demonstrating. Sales will quickly follow. Catalogue and prices sent on request.

for Commercial Lighting



No. 2112.
Made in
5 sizes.

Cora Glass

SNOW-WHITE; rays thoroughly diffused; filament concealed; full power of the lamp transmitted. A potent factor in Cora-Lite's success, the lighting efficiency of Cora Glass has never been equalled.

Consolidated Lamp & Glass Company

CORAOPOLIS, PA.

NEW YORK, N. Y.	CHICAGO, ILL.	PORTLAND, ORE.	LOS ANGELES, CALIF.	BOSTON, MASS.	LONDON, ON.T
66 W. Broadway	17 N. Wabash Ave.	233 Sherlock Bldg.	351 Pacific Electric Bldg.	164 Federal St.	113 Wortley Road

ABOLITES



Abolites in Nordyke & Marmon Plant, Indianapolis, Ind.

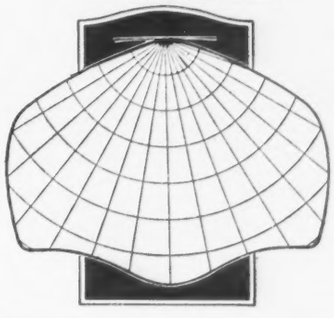
Lighting the Way for Industry

QUALITY follows well lighted paths. Production increases. Accidents and waste decrease. Abolite Reflectors are an efficient part of industrial lighting systems. They are helping industry see.

Abolites are a fine development of the necessity for good light *direction*. The RLM type is particularly desirable in factory illumination. It affords wide distribution. It illuminates working surfaces in any plane. It gives sufficient light to surrounding areas and walls. For individual or localized lighting there is no more effective unit than the Deep Bowl Abolite. And there are other constructions for every lighting need.

Abolites were designed with consideration not only for floor spaces and ceiling heights, but for colors of walls, ceilings and floors, and the architectural construction of buildings. A most complete line of vitreous enameled steel reflectors for every industrial purpose, for signs, show-windows, yardways, roadways, sidewalks, garages, etc.

RLM Distribution curve with 100-watt lamp



RLM Standard Abolite. "F" or one-piece type.



May we send booklets? Particularly interesting to illuminating engineers and lighting contractors. Write today.

The National Screw & Tack Co.

AB Products Division

CLEVELAND, OHIO

Chicago Office
326 W. Madison Street

New York Office
2 Rector Street

Distributors in principal cities

Also Manufacturers of Gyrofans and Small Motors

ABOLITES PUT THE LIGHT WHERE IT IS NEEDED

BRASCOLITE

for Better Illumination



TYPE W.G.

Handsomely decorated ceiling band of heavy gauge brass finished in old gold. Reflector plane of Armco Iron porcelain enameled; ornamental design on outer edge in old ivory. Special white glass bowl beautifully etched.

Interesting view of Electric Equipment Co.'s' show-room—looking towards Hanan Road, Shanghai, China—showing modern arrangement.





Library of Government Institute of Technology, Shanghai, China—lighted throughout by Brascolite



Robert Dollar Building, Shanghai, China. Partially Brascolited.



Great Northern Telegraph Company Building, Shanghai, China—Brascolited throughout.

—in Shanghai, China

Brascolite is not only the largest selling lighting fixture in the world, but is today being sold in almost every country in the world.

The Electric Equipment Co. of Shanghai, China—one of Brascolite's leading distributors in the Far East—is typical of Brascolite's world-wide service. Many of the large commercial houses and leading institutions of Shanghai are Brascolited throughout.

The chief reasons for Brascolite's tremendous success are its high efficiency, its proved economy, and its wide adaptability to every lighting need. Wherever electricity is used, Brascolite naturally follows as the ideal light for every purpose.

This all-purpose usefulness of Brascolite makes it easy to sell; means less investment in stock—quicker turnover—bigger profits—and dealers everywhere are proving it so.

Write for handsomely illustrated booklet—in colors—descriptive of the complete Brascolite line—and let us tell you about our liberal proposition to dealers.

THE BRASCOLITE COMPANY, ST. LOUIS, U. S. A.

Division of the St. Louis Brass Manufacturing Company

BRANCH OFFICES:
(*Sales and Service*)

Atlanta Boston Chicago Cincinnati Detroit Philadelphia Los Angeles
Minneapolis New Orleans New York Omaha

Canadian Distributor: Northern Electric Co., Ltd., Montreal

Dealers are cordially invited to visit us at the "Fixture Market" to be held in Cleveland, Jan. 15, 1923.

Macbeth Candle Shades

NEW— Beautiful Efficient



A New Line of Glass Shades for the Candle-type Fixture

HERE'S some new, profitable business for fixture dealers. Macbeth Candle Shades are the newest product of the Macbeth-Evans Glass Company, America's oldest and largest manufacturers of fine illuminating glassware.

Back of this new product is the biggest and finest national advertising campaign ever created to promote shade-business for the fixture dealer.

These shades are especially designed for the candle-type fixture. They're made of the finest Thebian glass, individually decorated with attractive designs painted in beautiful, harmonious colors. Several artistic shapes to choose from.

A new, patented holder is furnished with each shade. Holder fits any standard candle-type fixture. Holds the shade in an unvarying, vertical position.

Each Macbeth Candle Shade is packed in an individual carton. With each order is furnished a self-selling package for counter or window display. Posters showing twelve different shades in full colors, and reprints of national advertising, furnished free for window trimming.

Everywhere buyers are waiting for these shades. There's nothing like them on the market. Dealers who are first to display Macbeth Candle Shades will be surprised at the ease with which they sell. Write for full information immediately.



Macbeth-Evans Glass Company
Pittsburgh

Branches in
New York, Chicago, Philadelphia, Boston, San Francisco
Macbeth-Evans Glass Company, Limited
Toronto, Canada

Rush Express Shipments of Greist Lamps Have the Right-of-Way

—we can take care of your late Xmas calls



Customers! And possible customers! Wire us NOW your eleventh-hour Xmas orders of Greist Lamps. "Electrical Merchandising" announces that it has prevailed on the express companies to give preference to holiday shipments of electrical goods. Order the mixed assortment below, or make up your own. But—be sure to have Greist Lamps on hand up to the end of the rush.

JUNIORLITE

Stands, Hangs or

Clamps Anywhere

A clever patented clamp concealed in the base pulls out and holds the Juniorlite rigidly in any position on the bed post or on any object up to 2 inches in thickness. Hinged standard and tilting shade throw light in any direction.

The Juniorlite is made in five beautiful finishes. Retails from $5.00 up. The Juniorlite and the Wallace and Greist Lamps shown below are

The Personal Lamp Gifts of 1922

They are ideal for table, dresser, desk, sewing machine, piano, phonograph, bed—wherever an ordinary lamp won't go, a Greist Lamp will. So you can sell one to each *member* of a family instead of the usual one to each *family*.

Order Asst. No. 312-M

including complete window trim

1 Brushed Brass Greist Lamp
1 Statuary Bronze Greist Lamp
1 Brushed Brass JUNIORLITE
1 Statuary Bronze JUNIORLITE
1 Verde Antique JUNIORLITE
1 Ivory Enamel JUNIORLITE
2 Brushed Brass Wallace Lamps
1 Nickel Wallace Lamp
1 Gray Enamel Wallace Lamp
1 Brown Enamel Wallace Lamp
1 Black and Gold Wallace Lamp

Costs you $34.00, *Retails for* $58.25



WALLACE LAMP

Most compact, lowest priced, adjustable lamp made. In eight beautiful finishes. Retails from $3.50 to $4.00.

GREIST LAMP

The largest of the group — a real table lamp — yet adjustable. Four artistic finishes Retails from $6.50 to $7.50.

THE GREIST MFG. CO., NEW HAVEN, CONN.

GREIST Products

Mr. Luckiesh is Right



October, 1922 ELECTRICAL MERCHANDISING

In the kitchens surveyed, 70 per cent of the ceiling-fixtures are drop-cords, and only 20 per cent of the ceiling-fixtures are placed at the ceiling. In the kitchen, enclosing glassware or a deep reflector at the ceiling provides the best lighting. Here is a large field for the electrical merchandising man, dealer or contractor.

In the kitchen 70 per cent of the ceiling-fixtures are drop-cords and only 20 per cent of the ceiling-fixtures are placed at the ceiling. In the kitchen, enclosing glassware or a deep reflector at the ceiling provides the best lighting. This is a large field for the merchandisers.

The predominance of drop-cords in bedrooms and bathrooms provides an opportunity for the sale of better fixtures.

The basement also is a field for the sale of reflectors.

ELECTRICAL MERCHANDISING

A Commercial Survey of Residenc Lighting Possibilities—II

The Present Status of Fixtures and

By M. LUCKIESH
Applied Science, Nela Research

—and so is Baby Denzar



The article by Mr. Luckiesh, Director of Applied Science, Nela Research Laboratories, in the October issue of *Electrical Merchandising,* calling attention to the prevalence of drop cords in kitchens and our own ad on page 234 of the same issue were a significant coincidence. Both of them used an illustration of the Milwaukee Electrical Home Kitchen, with Baby Denzar installed, as an example of good kitchen lighting and laid stress on the large field for the sale of a good kitchen light.

Mr. Luckiesh says 70 per cent of the kitchen lights now in use are drop cords and only 20 per cent are rosettes mounted on the ceiling. We said 90 per cent were bad; perhaps we were a trifle extravagant, but Mr. Luckiesh does not say that the rosettes provide good lighting.

A Baby Denzar equipped with a 75 or 100 watt Mazda C lamp furnishes ample glareless illumination in the kitchen while its perfect diffusion obliterates all harsh shadows. Baby Denzar makes the Workshop of the Home brighter and the woman in the home happier. Mr. Luckiesh has shown you the market, we have given you Baby Denzar, unquestionably the best kitchen light; the back door stuff—actually selling them to the housewife rests with you. Start now while the field is fertile. We have folders and newspaper ads to help, but you must write for them. An order for 10 Baby Denzars gets an extra five per cent discount.

BEARDSLEE CHANDELIER MANUFACTURING CO.
223 SO. JEFFERSON ST., CHICAGO, ILLINOIS

DENZAR

For Better Fixtures



Adjustable Stem Candle Sockets



No. 1216—⅛ in. Pull Chain, 4 in. to 5 in. extension.

No. 1217—⅛ in. Pull Chain, 5 in. to 6 in. extension.

No. 1214—⅛ in. Keyless, 4 in. to 5 in. extension.

No. 1215—⅛ in. Keyless, 5 in. to 6 in. extension.

GUARANTEED F WIRING DEVICES



No. 121-A—Keyless, with ⅞ in. extension bracket and ⅛ in. nipple.

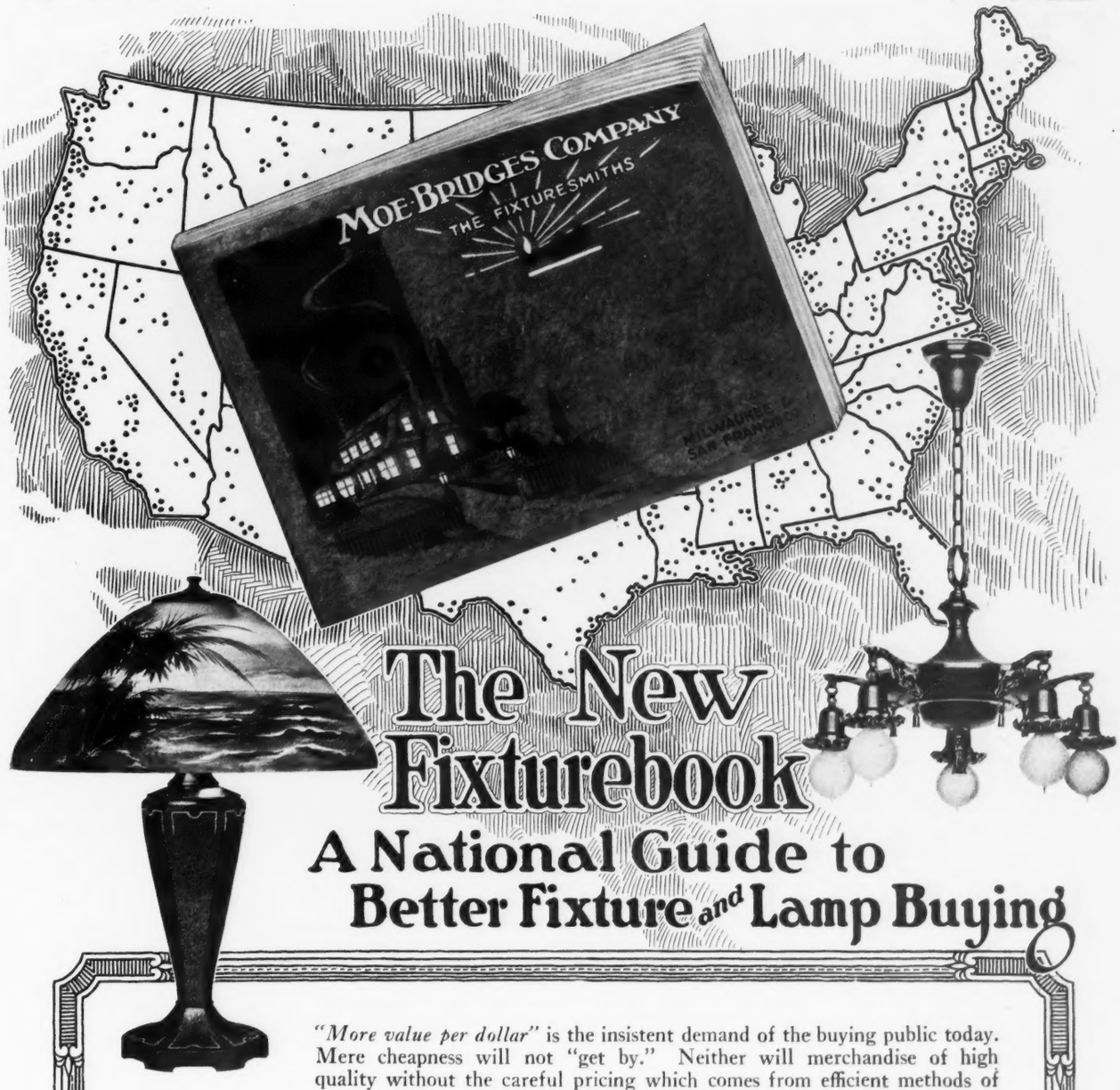
No. 121—Keyless, with ⅛ in. nipple.



E. H. Freeman Electric Company

TRENTON, NEW JERSEY

Manufacturers of "Circle F" Wiring Devices



The New Fixturebook

A National Guide to Better Fixture and Lamp Buying

"More value per dollar" is the insistent demand of the buying public today. Mere cheapness will not "get by." Neither will merchandise of high quality without the careful pricing which comes from efficient methods of production.

The dominant purpose of Moe-Bridges Company is to produce Lighting Fixtures and Art Lamps of outstanding character at the lowest price consistent with high quality standards—to give *"greater value per dollar."*

The new Fixturebook, now in the hands of thousands of bona fide electrical dealers in all states of the union, is rapidly becoming recognized as a National Guide to Better Fixture and Lamp Buying.

If you have not received your copy, write for it on your business stationery today.

MOE-BRIDGES COMPANY

Moe-Bridges Co.

THE FIXTURESMITHS

MILWAUKEE SAN FRANCISCO

Put These Leaders in Your Xmas Window

Glaenzer
French Art Novelties

Now is the time to push Glaenzer French Art Novelties. The Wall Brackets, Chandeliers, Perfume Burners and Lamps (all imported from Paris), which comprise our line, are just the things you will want to feature for Christmas. They are so unusual that they will attract a great many new customers to your store.

for the fireplace



It is not too late to get a supply if you order at once. Get in touch with us now!



Novelty Fruit Candelabra—Beautiful Colored Glass Fruit.

Glaenzer Trading Corporation

Importers

Showrooms
33-39 W. 34th St.
New York

Société Glaenzer
Boulevard de Strasbourg
Paris, (France)

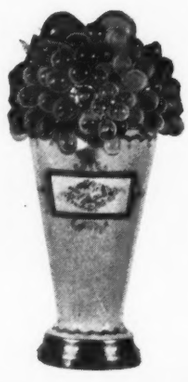


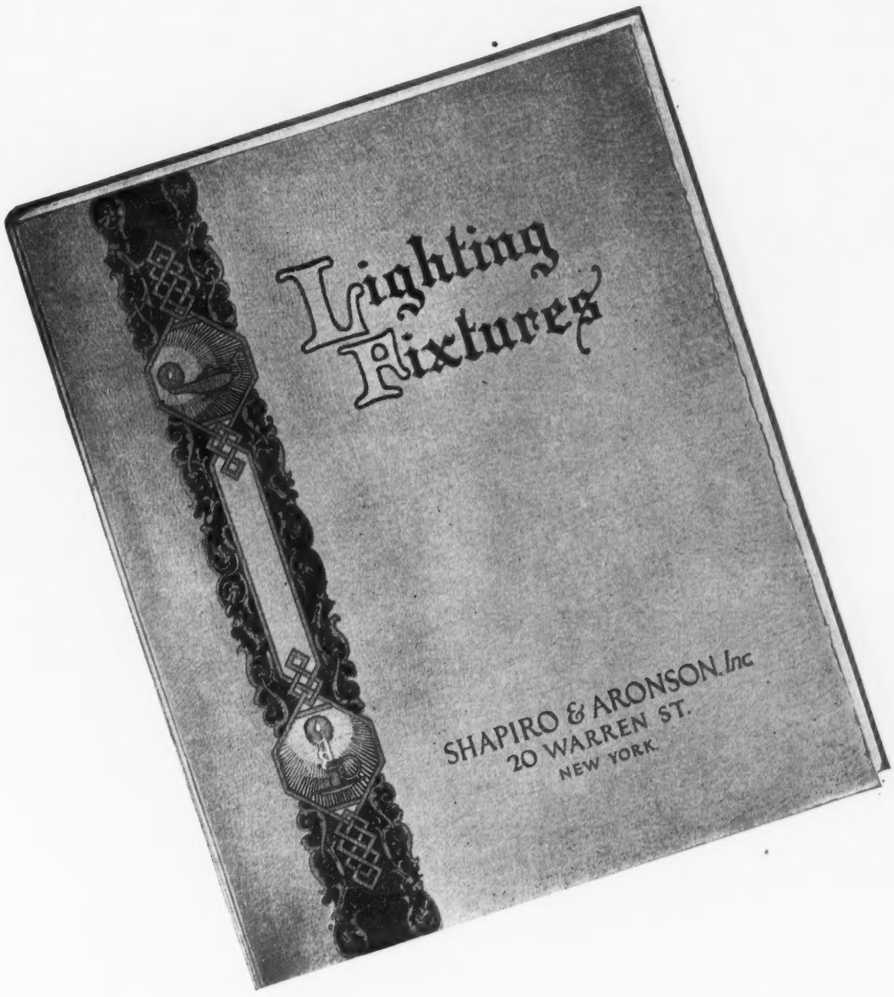
Novelty Dresden Lamp with beaded glass shade. An entirely new idea.



Artistic Parisian Perfume Burner of Irridescent China.

Lighted Fruit Bowl of colored glass, set in irridescent china vase with bronze base. An ideal gift.





A Real Lighting Fixture Salesman

THE new S. & A. Catalog No. 25 has demonstrated its practical value as a consistent sales-maker. Our files are full of letters from dealers who have increased sales and profits with the aid of this unusual book.

Make S. & A. Catalog No. 25 the foundation of your 1923 sales plan. It gives you the most complete line of quality-built, popular designs on the market—the product of the largest lighting fixture manufacturing plant in the country.

See us at the Fourth Annual Lighting Fixture Market
Cleveland, January 15 to 20—Rooms No. 905-907

SHAPIRO & ARONSON, Inc.
20 WARREN STREET
NEW YORK N. Y.
Middle West Distributors for S. & A. Line
Chicago Lighting Fixture Co.
28 West Lake Street, Chicago, Ill.

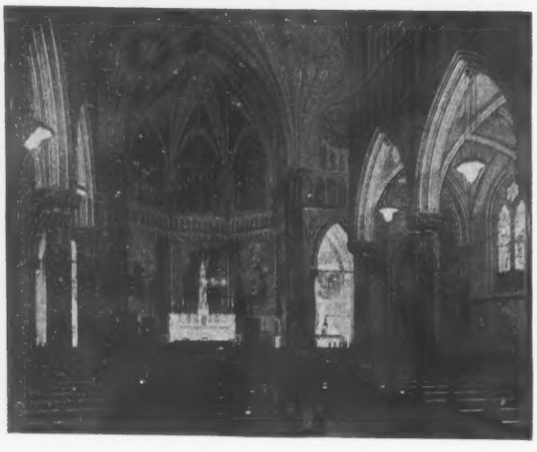
Get After the Church Business



All Saints Church, Madison Ave. & 129th St., New York City. PLANETLITE'd throughout.



Before the installation of Planetlites.



After the installation of Planetlites. Reflectors are also installed above discs.



Shipped to the job Ready to Hang

Here's the New Gothic No. 1432 H. R. Planetlite

For church installation—note the contrasts in Photos 2 and 3, each of which was taken under its own lights.

Churches offer a big field for Planetlites — and by-the-way don't overlook the architect.

Let us help you "Planetlite" the ecclesiastical spots of your territory.

PLANETLITE Co. Inc.

342 Madison Avenue, New York

PLANETLITE

Special Last Minute Xmas Offer

8 Exquisite Hand-painted Lamps for $100.00

This special offer includes 5 Boudoir, 2 eighteen-inch Table and 1 sixteen-inch Table Lamps.

These are ready to ship to you at once by express for your Xmas trade.



Autumn Landscape Verde Antique Base.



Moonlight Effect Silver Antique Base



Tropical Sunset Landscape Verde Antique Base



Mid-Summer Lake Scene Bronze Base



Red and Black Scene Bronze Noir Base

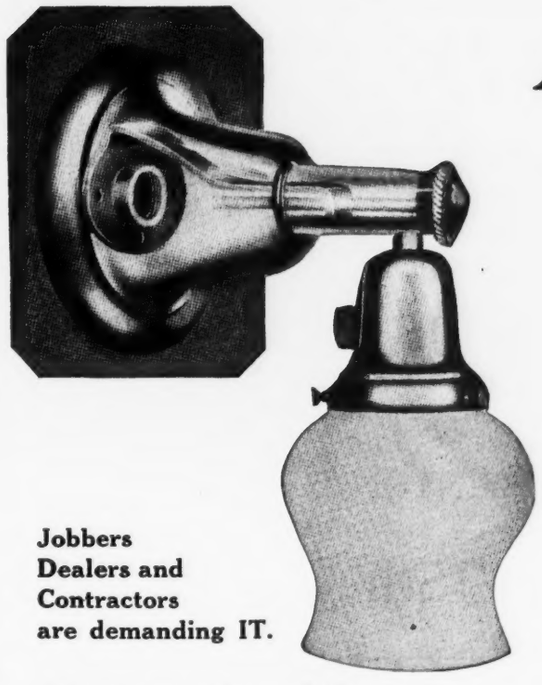


Blue Top with Poppy Old Gold Base

The eight lamps in this offer are of the very highest quality.

Wire Your Order to the

CLASSIQUE LAMP STUDIOS
518 Market St., Milwaukee, Wis.



Jobbers Dealers and Contractors are demanding IT.

A Staple—

McPhilben One-Piece Adjustable Bracket

Saves time, labor and materials on every installation.

The only 100% bracket on the market. Is adjustable, heavy gauge, rolled and soldered. No hickeys, crowfeet or extensions.

Approved Underwriters' Electrical Report 5620.

Packed one to a carton.

Can be bought through your jobber.

Attractive proposition to Jobbers.
Write for terms and trial carton of Brackets.

See us at Lighting Fixture Market at Cleveland from Jan. 15 to 20th.

McPhilben Lighting Fixture Co., Inc., 264 Fulton St., Jamaica, New York



151 M. Shade 3920 A.

It is not too late
to order Cassidy
Lamps for the
Holiday Trade

Wholesale Dept.

CASSIDY COMPANY, Inc.

101 Park Avenue, New York

Designers and Manufacturers of Lighting Fixtures
Since 1867



Our 1923 Models

will be on exhibition

AT THE

Cleveland Convention

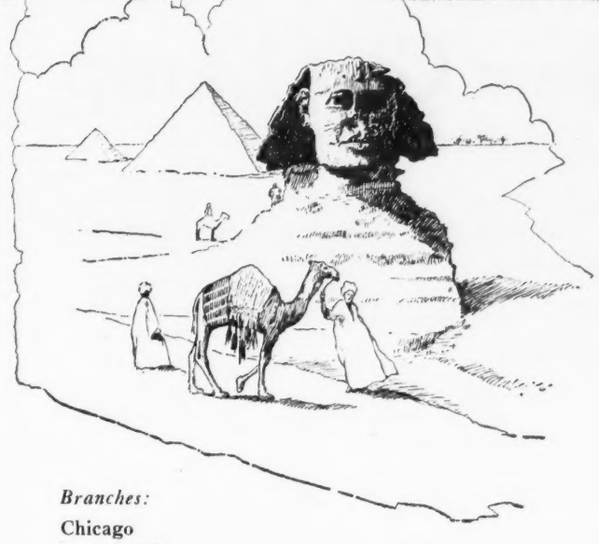
Room 1018

WINTON HOTEL

January 15th to 20th, 1923

The Horn & Brannen Mfg. Co.
Philadelphia, Pa.





Your Products are Only as Good as their Finish—

EGYPTIAN LACQUERS

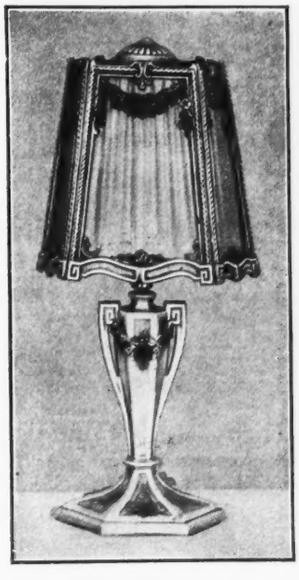
assure you of the finest finishes the market affords—and they cost less.

Branches:
Chicago
Los Angeles
San Francisco

Factories:
Newark, New Jersey

The Egyptian Lacquer Manufacturing Company
5 East 40th Street, New York

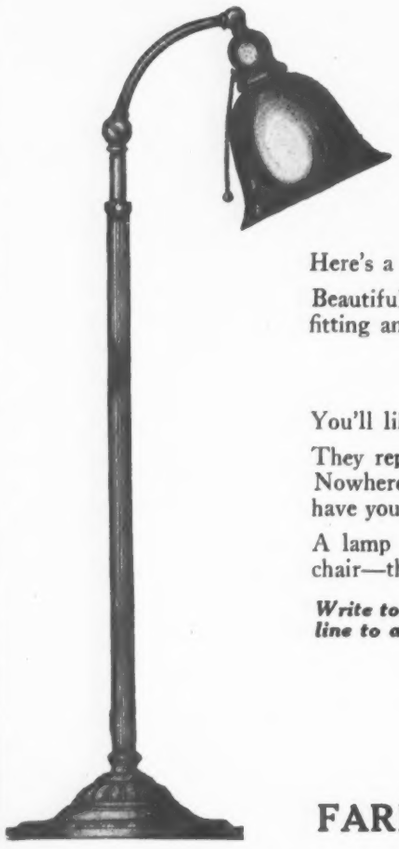




NOE LAMPS

BOUDOIR
TABLE
FLOOR

Wm R. NOE & SONS
43-47 E. 10TH ST
NEW YORK CITY



right off the press for you

The New Gift Lamp

CIRCULAR

Here's a new booklet you'll want on a brand new line you'll like to sell.

Beautifully illustrated in actual colors, the New Gift Lamp circular makes a fitting announcement of this new addition to the Faries line.

SOMETHING ENTIRELY NEW

You'll like these New Gift Lamps.

They represent a new advancement in the manufacture of floor portable lamps. Nowhere before has the demand ever been so completely filled—not until now have you been able to really cash in on the waiting sales.

A lamp to play cards by—the sick room lighted—a companion for the reading chair—the sun porch—a lamp for every need is found in Gift Lamps.

Write today for your sample copy. We believe you'll find Gift Lamps a profitable line to add.

FARIES

Established 1880

FARIES MANUFACTURING CO., Decatur, Ill.



Number 655

Exclusive and Original
Designs of French Origin
—executed in Paris shops.

Girandoles, Luminaires
and Brackets.

Arthur Harrison & Company

Manufacturers and Importers

24 So. Clinton St., Chicago, Ill.

C. MECKMAN PRESIDENT
Art Craft Fixture Co.

Art Craft Fixture Co.

Makers of
FINE LIGHTING FIXTURES
85 ACADEMY STREET
Newark, N.J.



No. 51350

Five Points of a Good Fixture

Best Quality **Correct Design**
Proper Construction **Lasting Finish**
Reasonable Price

If dealers sell their trade fixtures having these five points, they will make satisfied customers, and satisfied customers mean more business.

Every Art Craft fixture is built on these five points; so start the way to more business by ordering Art Craft fixtures.

BRASS



Electric Fixture PARTS

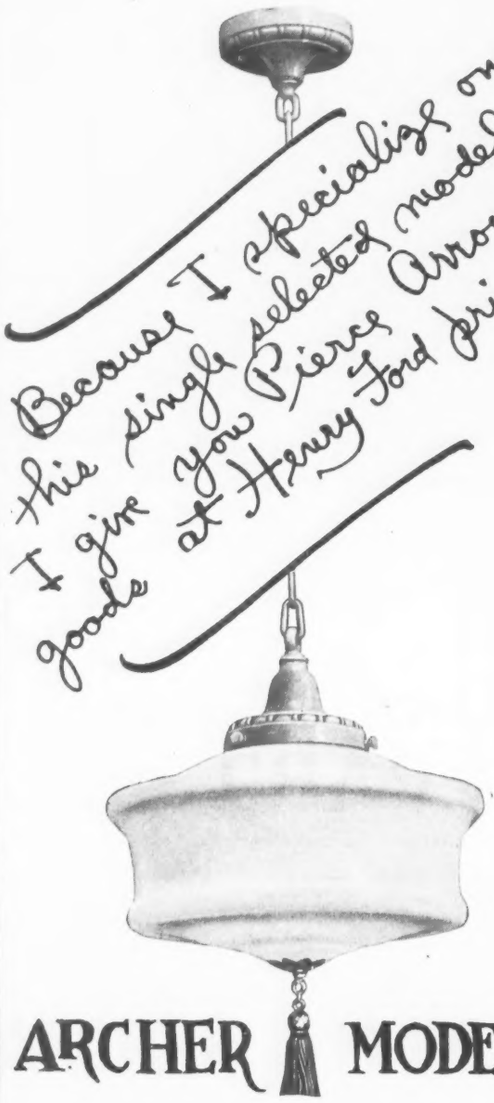
It is not an easy thing to decide where to buy small brass electric fixture parts. There are many companies who advertise that they make them and there are apparently many sources of supply. The following questions help solve the problem and by the process of elimination enable you to choose your manufacturer with confidence.

1. **Is the company an old, trustworthy concern?**
2. **Do they produce in such quantities as to give economy?**
3. **Have they had experience in this line?**
4. **Who are their customers?**

We would have perfect confidence in having any one of our customers answer these questions.

Makers of more than 33,000 brass articles, with a manufacturing experience of over 85 years, the Waterbury Manufacturing Company assures new customers the same satisfaction that others have had in us since 1837.

WATERBURY MANUFACTURING COMPANY
Division of Chase Companies Inc.
WATERBURY CHASE CONNECTICUT



ARCHER MODEL

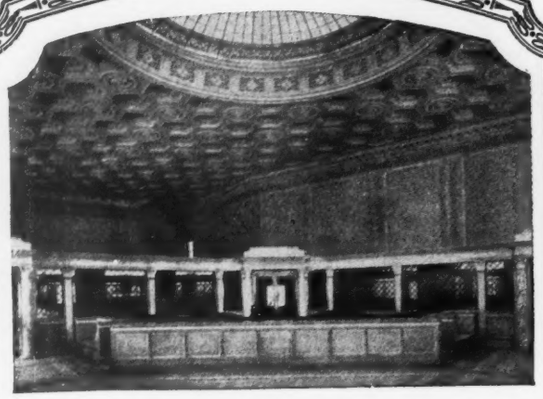
HAVE you a prospect in your town where a better looking fixture might land the contract? The ARCHER not only looks the best but in light output beat 21 competitors for 1700 fixtures in the great open competition for the New York Liggett Building.

Let me put the ARCHER in your hands at a net price that will land the job and give you a handsome profit.

Send for sample ARCHER. I'll take the risk. Write today to

George Ainsworth

Architects' Building, New York City



A Typical Frink Installation, J. P. Morgan & Co., New York. Trowbridge & Livingston, Architects.

Frink lighting service is part of *your* service

The dealer-contractor does not find I. P. Frink, Inc., a thing apart. *Our* service can be a part of *your* service, to the profit, in money and prestige, of both parties.

In figuring on modern buildings such as churches, banks, hospitals, theatres and stores, you often find that stock fixtures will not ideally meet the architect's demands—that a scientific knowledge of lighting principles and highly specialized installations alone will produce a result harmonious with the design.

In such a case the dealer-contractor has in the Frink Engineering Department an absolute extension of his own service, backed by 64 years of intensive experience in these problems.

Furthermore, in suggesting the Frink Lighting System a ready acceptance awaits you, from both architect and principal, based on their knowledge of Frink success in scores of similar installations, and on the extensive advertising we are constantly directing to them in their technical and trade journals.

Your files should contain a complete set of Frink Catalogs.

I.P. FRINK, Inc.

24th Street and 10th Ave., New York

SAN FRANCISCO, CAL. 77 O'Farrell St. | CINCINNATI, OHIO 17 Greenwood Bldg. | SEATTLE, WASH. 609 Seaboard Bldg.
CLEVELAND, OHIO 336 The Arcade | DETROIT, MICH. 325 State St. | BOSTON, MASS. 161 Summer St.
CHICAGO, ILL. Monadnock Bldg. | LOUISVILLE, KY. 415 W. Main St. | PHILADELPHIA, PA. Franklin Trust Bldg.
CANADA: Associated with Robert Mitchell Co., Ltd. 64 Belair Avenue, Montreal



No. 0988 Height 27 in.

Biddle-Gaumer Lamps and Lighting Fixtures

Embrace every conceivable style, from the Ultra conservative to the most unique—yet all are distinctively original—and the prices are right.

The B-G Catalog should be in your files.

BIDDLE-GAUMER COMPANY
3846-56 Lancaster Avenue, Philadelphia, Pa.

Owen Walsh Fixtures



A Mighty Profitable Line

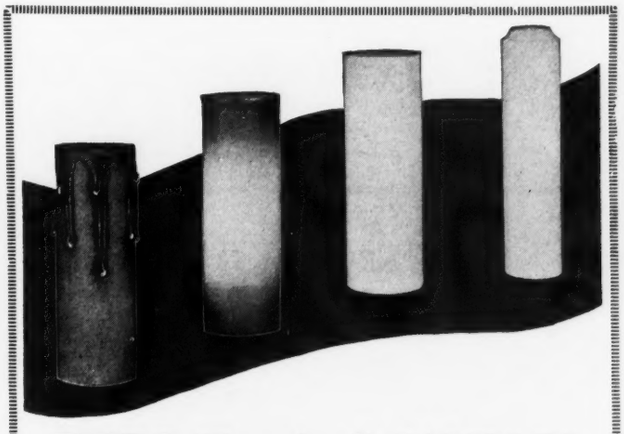
Distinctive Designs—
Perfect Finishes—
Reasonable Prices—

on quality Lighting Fixtures, Imported Bronzes and Imported Glass Boudoir Lamps.

If you would be interested in a quality line that pays the ultimate in profits write us now for catalog.

Owen Walsh Mfg. Co.
525 W. 26th Street
New York City

—*They Sell*—



FIBRO "Seamless" CANDLES

are distinctive

Distinctive Candles Help Sell Good Fixtures

Are you using FIBRO "Seamless" CANDLES?

All finishes Lacquer-Enamelled (Sprayed) on FIBRE or PAPER Body

For the cheaper lines we manufacture a low-priced candle (not enamelled) but covered with White Coated Paper which shows seam, but is best in its class.

All Sizes, lengths and finishes in stock

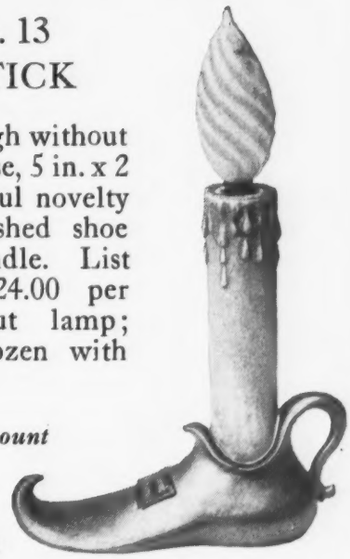
Sole Manufacturers

FIBRO PRODUCTS CO.
New Bedford, Mass.
New York Office: 173 Lafayette Street
Complete stock carried

LOOK!
—a real novelty

Our No. 13
SHOESTICK

Stands 6 in. high without the globe. Base, 5 in. x 2 in. A beautiful novelty—a gold finished shoe with ivory candle. List prices are $24.00 per dozen without lamp; $36.00 per dozen with carbon lamp.



50% *Discount*

Manufactured by
CENTRAL
METAL CRAFTS

Distributed by

THE ELITE LAMP CO.
8 So. Dearborn Street, Chicago

A Xmas Special



—an exceptional Number from the

New Complete Artistic Catalog

containing a fine variety of Residential and Commercial Lighting Fixtures, special numbers, etc.

You need this catalog to help you get more business all year 'round. Write for a copy.

You need this fern dish to help you get more holiday business now. Order several today. Prices and profits attractive.

Artistic Lighting Fixture Corp.
21-25 East Houston St., New York City
Show Room: 136 Bowery, N. Y.

ELCO Commercial



The new unit for Better Illumination

The Unit of high efficiency—perfectly diffused light.

Live dealers everywhere see the advantage of handling this Unit.

Write for our new catalog which fully explains its merits and talking points.

Some territory still open for reliable dealers.

Established 1900
The Edward Light Co.
Kansas City, Mo.

ARTFIBRE

Quality Efficiency Service

Let us help you land that next lighting contract. If necessary, we will submit special ARTFIBRE fixture designs for your customer's approval. THEY WIN!

"ARTFIBRE'S unique beauty is a powerful selling force."

FIBREDURO, INC.

Designers and Manufacturers of ARTFIBRE PRODUCTIONS
Studios: 163 Newport Avenue
Brooklyn, N. Y.
Boston Office: 164 Federal Ave., Boston, Mass.
Mr. N. W. T. Knott, Agent

For Fixtures and Portables

The
NEW NO. 33

DIM-A-LITE

PULL CHAIN SOCKET

Produces 6 changes of light. Saves 30% to 80% current at the meter



Fits standard husks, takes any shade-holder.

List Price
$1.00

Approved by the Underwriters

WIRT COMPANY

PHILADELPHIA **PENNSYLVANIA**



Pat. Pending
C 560
36 in. over all
Lantern:
10 in. high—
5½ in. diameter

Our Line of Copper Lanterns is Complete

We illustrate herewith our latest design, furnished of either brass or copper.

We also manufacture a full line of Brass Fixture Parts

Friedley-Voshardt Co.
733-37 S. Halsted St., Chicago, Ill.



"Anchor Adapter"
Patented
Jan. 3, 1922
Feb. 14, 1922

"Anchor Adapters"

convert your customers' favorite vases into most attractive lamps in a minute's time. No holes to be drilled in vases.

The anchoring device is adjustable for width as well as for distance below jar cover, thus making it easy to attach the device to any shape of vase, in a most secure manner. Hinged arms will pass through very narrow mouths of jars.

Made from the best of materials, and finished either in Statuary Bronze, or Brush Brass. Seven different sizes of covers, in half inch sizes, from three inch to six inch diameter.

Two styles of two-light adapters, one with rigid electric sockets and one with adjustable swivel sockets. Single light style also, with push switch socket, at reasonable prices.

Manufactured only by

J. B. Timberlake & Sons
Jackson, Michigan
Dept. M.

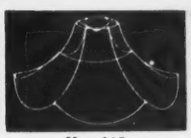
Send for circular No. 33 giving prices on Adapters. Also catalog No. 25 showing our line of better made Wire Lamp Shade Frames.



No. 113



No. 114



No. 117



No. 120

The Difference in

Your Profit

on a job done with the highest grade materials like



Elastoid "Noseam" Candles



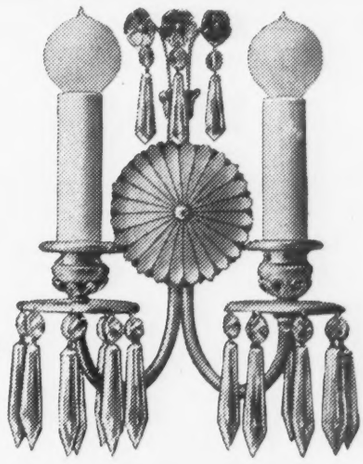
will make you a fat dividend.

"Noseam" costs no more—

May we send you a sample?

Made only by

Elastoid Fibre Company
Waltham, Mass.



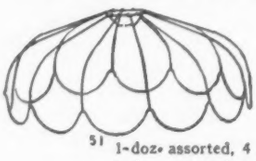
Sales Makers

We offer a fine variety of designs that will make sales because of their attractiveness. They will satisfy, too, because they mean better lighting as well.

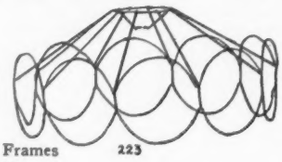
Write today for a copy of our *"Selected Designs"*

CRESCENT ART METAL CO.
200 Water St., Bridgeton, New Jersey

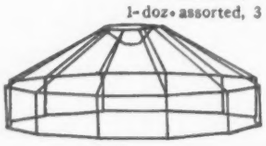
MODERN WIRE LAMP SHADE FRAMES


51

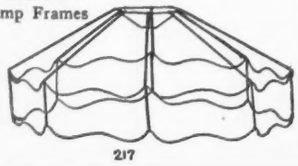

114


223

1-doz. assorted, 4 kinds, Floor Lamp Frames
1-doz. assorted, 4 kinds, Table Lamp Frames
1-doz. assorted, 3 kinds, Bedroom Lamp Frames


129


101


217

—assures a quick turnover with little sales effort and liberal profit to jobbers and dealers carrying an assortment of frames in all sizes.

—a complete assortment of 36 wire frames, 3 frames to a size, packed in one crate. Size 24 in. x 48 in. Weight 38 lb.

These frames are well made and include the most artistic lamp shade designs. Original prices are low enough so that both the jobbers and retailer are certain of a liberal profit, and the consumer of a fair buy.

Estimates furnished on special assortment or quantity lots of wire goods of every description.

Modern Wire Specialty Co., *Inc.*
334 S. Wabash Ave., Chicago

Newport Design







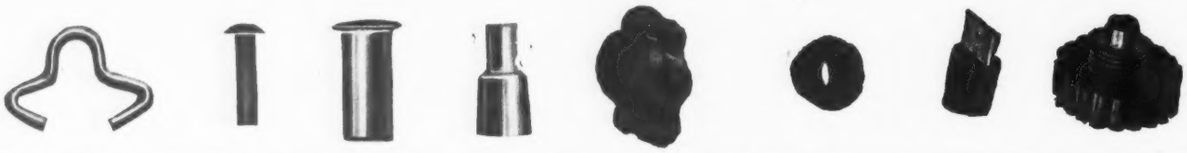
2-Piece Holder made in 4 in., 5 in. and 6 in.

Shower Plate made in 12 in., 14 in. and 16 in.

CREATES QUICK SELLING FIXTURES

Fixtures that sell demand the unusual in design. Fixture parts of the "Newport" design are making excellent selling numbers for manufacturers, jobbers, assemblers and dealers in fixtures and parts, because they are attractive and different.
Send for catalog showing full "Newport" line and our many other designs in full lines of fixture parts.

CONSOLIDATED METAL SPINNING AND STAMPING CO., INC.
718-720 Atlantic Avenue, Brooklyn, N. Y.



METAL SPECIALTIES—EYELETS—MOULDED INSULATION

We make quality products right from your blueprints
and deliver them on time

Let us quote on your* 1923 *requirements

Waterbury Button Company

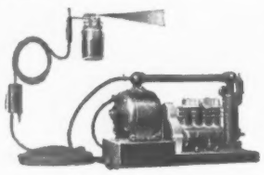
WATERBURY — *Established* 1812 — CONN.

DECORA AIR BRUSH OUTFIT

over 800 in daily use

A key socket device that will apply beautiful finishes on either metal or wood. Will decorate glassware or bric-a-brac.

Handles quick-drying lacquers, paints or bronzes equally well.


Easy to Operate

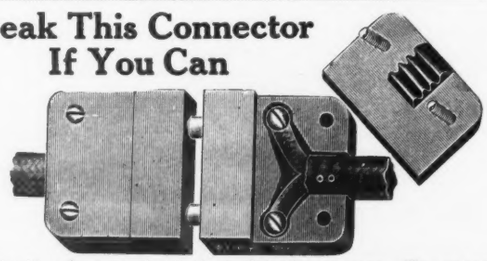
Five times faster and better than hand work.

Makes money and saves time for the owner.

Formulas and instructions furnished with each plant.

DECORA MFG. CO.
RICHMOND, CALIFORNIA

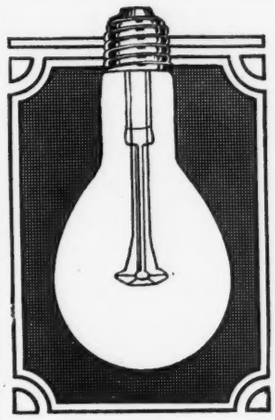
Break This Connector If You Can



Hit it with a hammer, give it the hardest kind of usage. The contacts and cable are imbedded in a solid block of fibre which is practically "Indestructible." That is why they are best for garages, shops, the stage, etc., where hard knocks are frequent and certain. *Write for Catalog K.*

Made for 2 and 3 wire circuits, branch-off connections, etc.

UNIVERSAL ELECTRIC STAGE LIGHTING CO.
KLIEGEL BROS., Props., 321 West 50th Street, New York.
Stage Lighting Engineers—Designers and Builders of everything electrical for the stage and theatre. (1X)



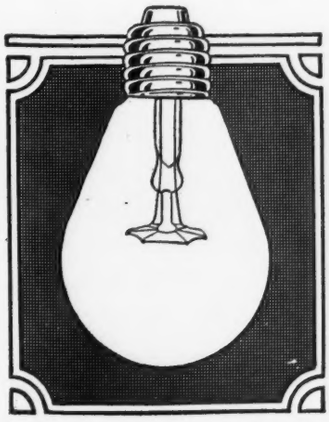


The only thing you need know about the quality of lamps, is the name

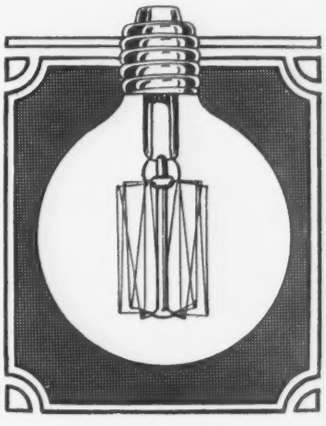
SAVE

It symbolizes the standard of perfection in lamp making.

If your jobber does not sell them—write us.

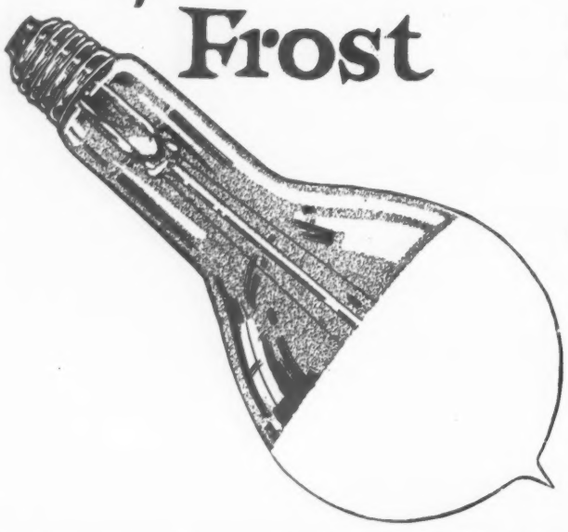


Save Electric Corporation
220-254 36th Street
BROOKLYN, N. Y.
615-623 Front Street
TOLEDO, OHIO
EXECUTIVE OFFICE: TOLEDO, OHIO



A CREATOR OF GOOD WILL

Velvet Frost



You have customers enter your store and ask for a particular type of frosted lamp that you do not happen to have in stock. Don't you think that if you were in a position to say, "I'll frost them for you right away," that your customer would appreciate this service?

Velvet Frost will enable you to do this. Whether you wish to frost 1 or 1000 lamps a day, Velvet Frost is suitable for your use.

For your Holiday Lamp Coloring use

Eleven Transparent — **Beacon Colors** — Eleven Opaque

Quick Drying and Durable

Write us for full particulars regarding these products

McKAY COMPANY
275 Water Street, New York City

Sales Producing Merchandise In Season

AD-A-LITE

"The finest two-light device made"

New List Price

$.75 **$.75**



The Reason:
Will take Shade Holder. Has Spring Contact in Base of Socket. Will seat in deep Sockets, handsome in appearance.

AD-A-LITE Made For Service
LIBERAL DISCOUNTS
Giving Greater Profits To You
Get a trial carton of 10 from your Jobber or send us your order giving your Jobber's name.

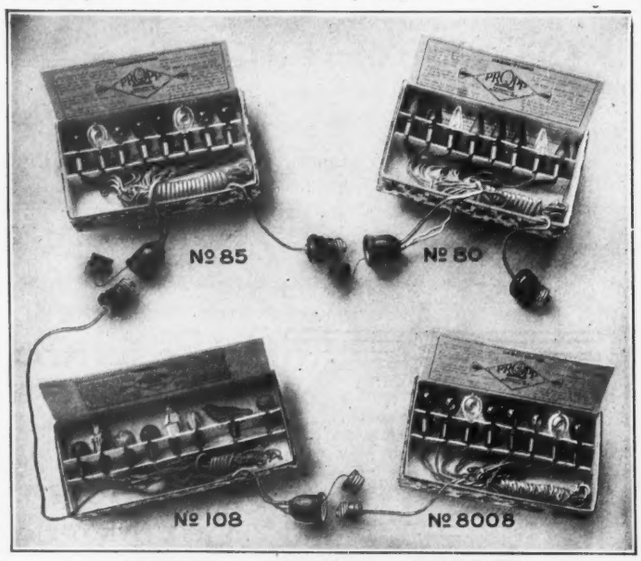
Liberal Discounts

Immediate Deliveries

Wire your orders

Sets made up with either Mazda or Carbon Lamps.

Features that make PROPP ONE-4-ALL Standard Unit Xmas Tree Sets the jobber's Best Sellers. Quality High—Price Lowest.



FLEXIBLE PRACTICAL UP-TO-DATE
Old or new sets can easily be attached to the PROPP Continuous Socket Attachment indicated by the Arrow.
THIS ONE STYLE SET TAKES CARE OF EVERY DEMAND

Order through your Jobber
Specify the name PROPP

M. PROPP CO.

524-528 Broadway, New York City

On August 26th, the UNDERWRITERS' LABORATORIES, File No. E5794, have passed and approved the PROPP CHRISTMAS TREE LIGHTING OUTFITS This approval now makes them the most desirable for sale.



"What's the Watt?"

WHEN a customer asks you this question and wants to compare one size lamp with another, it takes a lot of time and trouble to hook up the various types in the ordinary way and show him the contrast. But with Cel-A-Lite on the job the trick can be done in the twinkling of an eye by merely touching the spiders to which the twelve standard lamp types are connected. Only the desired pair of lamps will be lighted and these will be displayed exactly opposite each other where the customer can judge and choose between them in an instant.

CEL-A-LITE is a little globe-trotter with an established reputation for speeding up lamp sales and cutting selling costs to the very bone. It is built in two styles, lamps either standing up or hanging down. Better write for one today.

The Denver Electrical Laboratories

East 39th Avenue and Williams St.
Denver, Colorado

Something More

to help Hygrade Lamps sell themselves

A large window card, lithographed in eight colors, depicting a city at night, brilliant with light.

Adding selling force to the beauty of the picture is the suggestion of places where Hygrade Lamps are used — homes, office buildings, public buildings, factories, elevated roads, streets and signs—all tersely included in the words at the head of the card.

HYGRADE LAMPS
Everywhere Light Is Needed

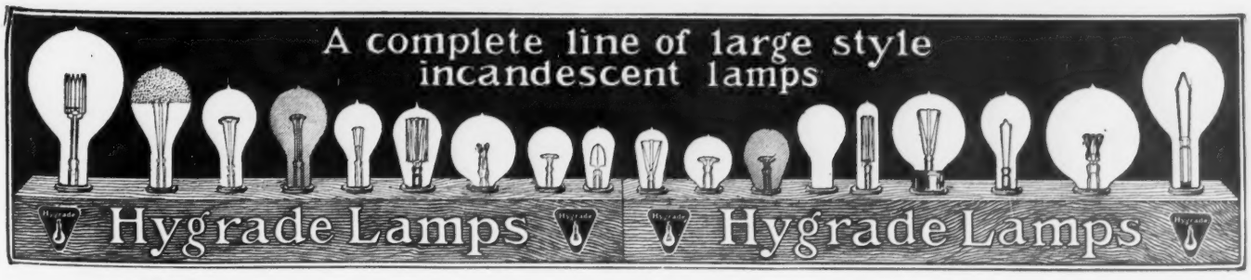


The Hygrade Window Display, two feet high by nearly three feet wide, is furnished to all Hygrade dealers on request.

HYGRADE LAMP CO

GENERAL OFFICE AND FACTORY SALEM MASS

Licensed under General Electric Company's incandescent lamp patents



Wire for Sample Gross

Money refunded if unsatisfactory

TRADE MARK

Live Wire Jobbers Get Busy



An Easy Profit Without Effort

PAT APPLIED FOR

Haupt Reflectors

Sell themselves—merely display them on the counters or in your Xmas window. All owners of Xmas Tree Sets will want them—trees show up 1,000 per cent better lighted. We furnish numerous attractive designs in various colors.

Haupt Reflectors make good "pick up" sales
Wire your order now.

B. Haupt & Co., Inc.

Established 1888

1040 Broadway, Brooklyn, N. Y.

RED DEVIL

LAMP COLORING

Complete Stocks Carried By:



All Branches: United Theatre Corp.; Southern Enterprises, Inc.; Southern Theatre Equipment Co. **California:** Myers and Schwartz (all branches). **Bridgeport, Conn.:** Union Light Co. **Denver, Colo.:** Denver Theater Sup. Co.; Hendrie & Bolthoff Mfg. & Sup. Co. **Washington, D. C.:** Natl. Elec. Sup. Co.; Washington Theater Sup. Co. **Jacksonville, Fla.:** Florida Elec. Sup. Co. **Tampa, Fla.:** Pierce Elec. Co. **Atlanta, Ga.:** Carter Elec. Co. **Chicago, Ill.:** Exhibitors Sup. Co.; Monarch Theater Sup. Co.; Washington Light Co. **Indianapolis, Ind.:** Indianapolis Elec. Sup. Co. **Louisville, Ky.:** Jas. Clark, Jr., Elec. Co. **New Orleans, La.:** H. K. Barnett Theater Sup. Co. **Baltimore, Md.:** Palmore & Homend. **Boston, Mass.:** Otto Both, 112 High St.; Wetmore-Savage Co. **Springfield, Mass.:** Chas. E. Hayes. **Detroit, Mich.:** Victor Elec. Sup. Co., Henry L. Walker Co. **Kansas City, Mo.:** B-R Elec. Co.; Kansas City Machine & Sup. Co.; Chas. M. Stebbins Picture Sup. Co.; Yale Theater Sup. Co. **Omaha, Nebr.:** The McGraw Co. **Newark, N. J.:** Beller Elec. Sup. Co.; M. Rutkin. **Trenton, N. J.:** Trenton Elec. Sup. Co. **Auburn, N. Y.:** Auburn Theatrical Sup. Co. **New York, N. Y.:** Display Stage Ltg. Co.; W. F. Irish Co. **Syracuse, N. Y.:** Syracuse Sup. Co. **Utica, N. Y.:** Utica Elec. Appliance Co. **Charlotte, N. C.:** Carolina States Elec. Co. **Cleveland, O.:** Elliott Elec. Co.; Republic Elec. Co. **Columbus, O.:** Amer. Theater Equip. Co. **Toledo, O.:** Toledo Elec. Sales Co. **Altoona, Pa.:** Altoona Elec. Engr. & Sup. Co. **Philadelphia, Pa.:** H. C. Roberts Elec. Co.; Standard Elec. Sup. Co. **Milwaukee, Wis.:** Boggis & Johnson; Ray A. Smith & Co.

Manufactured by

Technical Color & Chemical Works

Offices: 382 Hudson Street, New York

AT LAST!

A Lamp coloring in all colors that will not fade

A quick-drying—non-fading—brilliant lamp coloring for incandescent lamps.

Comes in over-sized cans so that bulb can be dipped directly in can.

Large assortment of colors. All coloring guaranteed.

Write today

Crown Coloring & Chemical Co.

327 Columbus Ave., New York City

Telephone Schuyler 7373



Takes 1200 people to publish them

A PASTE-POT and shears, wielded by a couple of editors and an office boy? No, the McGraw-Hill papers aren't published on that basis.

It takes 1200 men and women to edit and publish these thirteen journals. That is one reason why each is dominant in its peculiar sphere of civil, mining, chemical, mechanical or electrical engineering.

THE 13 McGRAW-HILL PUBLICATIONS

McGraw-Hill Co., Inc., New York

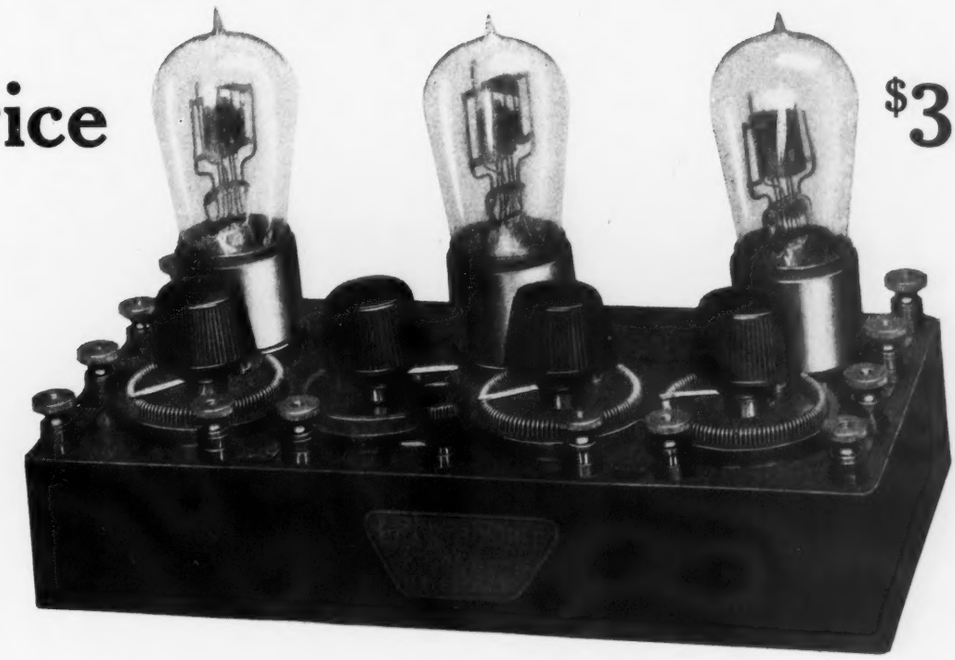
Ingenieria Internacional
Chemical & Metallurgical Engineering
Engineering & Mining Journal
Electrical Review & Industrial Engineer

Power
Coal Age
Electrical World
American Machinist
Journal of Electricity
Electrical Merchandising
Electric Railway Journal
Engineering News-Record
Bus Transportation

F-4

Betts Visible Detector-Amplifier Type D2A

Price $38.50



An Instant Success!

Inquiries, orders, and words of hearty praise have come pouring in since the moment the Type D2A was announced. Leading Jobbers and live Retailers have proved the truth of our announcement—"Just what the Radio Public has been hoping for."

This instrument is more compact, more efficient, more dependable, and simpler to operate. Its visible feature appeals to everyone who knows the importance of watching the tubes. Its sturdy, handsome appearance puts it in harmony with the finest surroundings.

For the Jobber and Retailer the D2A may be summed up in two words—"It Sells!" Write for further particulars. Write or wire *at once,* as our production is rapidly being taken. The Type D2A, like all other BETTS products, is sold only through the high-class trade, on our well-known terms which afford the Dealer a white man's profit.

BETTS & BETTS
CORPORATION
635 West 43rd St., New York

595 Mission St.
San Francisco

227 W. Randolph St.
Chicago

1415 Pine St.
St. Louis



Radiola No. V
Price $132.50

RCA

Two New Additions to the Radiola



Order This Window Display—It Will Boost Radio Sales

Here is a real snappy window display that will make radio sales jump. Get it today. Use it for the Holiday Season.

Get it from your RCA jobber or send $2.00 direct to the Radio Corporation of America. You will get prompt service.

Make this a Radiola Christmas



to Line

Radiola No. VI
Price $162.50

HERE they are—the two latest developments of the RCA laboratories, Radiola V and Radiola VI.

These two new complete Radiolas open up new opportunities for Radio profits. They can be sold with perfect assurance that they will stay sold.

Radiola V, Price $132.50

Radiola V is a practical receiver for use with an outside antenna. It is a sturdy and efficient unit embodying all the essentials of tuning, detecting and amplifying, and special provision is made for "vernier" or fine tuning adjustment. Loud speaking results of unusual tone quality are possible in local broadcast reception, and the use of head telephones will permit reception from the more distant broadcasting stations.

Everything considered, Radiola V constitutes one of the finest broadcast receivers available today. *It will be a good seller.*

Radiola VI, Price $162.50
(Without accessories)

Radiola VI brings the realization of indoor loop reception at last. It has a big sales field for apartments and other places where outside antenna cannot readily be erected. Radiola VI is the new, three-stage radio frequency amplifier followed by a vacuum tube detector and 2-stages of audio frequency amplification designed particularly for use with a loop antenna. It is rugged of construction and extremely sensitive in operation.

Radiola VI will give excellent results with a loud speaker for local broadcast reception and of course the substitution of head telephones for the loud speaker would increase the range considerably.

***Dealers!*—Radiolas V and VI represent two new and profitable items to any radio stock. Order them now from your Jobber.**

Radio Corporation of America

WORLD WIDE WIRELESS

Sales Division, Suite 1801, 233 Broadway, New York City
District Sales Office, 10 So. La Salle St., Chicago, Ill.

Triple Test Transformers

What do they mean to you?

In a market glutted with new radio products, some well made, some poorly and cheaply constructed, a few articles stand out prominently from the rest because the manufacturer employs highly competent engineers, the best of material and skilled workmanship. The Radio Service Laboratories goes a step further and submits each individual transformer to its famous triple test before shipping same to the jobber, dealer and ultimate user.

The Triple Test

First—Test of Windings.

The bobbins when wound and sealed are tested for continuity of winding and for shorts and leaks.

Second—Test for Inductance of Windings.

After assembly of the bobbin within the container a careful test is made of the inductance of the primary and secondardy windings to insure the consumer against any wrong connections or hasty careless construction.

Third—Test for Amplification.

After the iron core is assembled and the transformer sealed, each transformer is given an actual circuit test in a radio amplifier; the gain in signal strength being noted over that of the detector tube alone and required to meet the gain of our standard laboratory model.

The Result

is a Radio Frequency Transformer that increases the strength of Radio Signals or waves before they are applied to the detector tube where they are made audible—

"Louder Signals with less noise
Greater Range with same equipment"

Radio Service Laboratories Transformers by actual test are superior to any domestic or foreign make in the market. For sale at any electrical shop or store where Radio supplies are sold.



The only completely shielded iron core

RETAIL PRICE

$6.00

We absolutely and unconditionally guarantee our transformers

Special circular sent on request by the

Rasla Sales Corporation
National Distributors
Dept. D. 10 East 43rd St.
New York City

Attention of Dealers

TRIPLE TEST TRANSFORMERS are steadily advertised in the leading radio magazines and readers are urged to purchase from their local dealer. The Rasla Sales Corporation will gladly supply counter, window or wall display cards to dealers on request and urges them to obtain a supply of their transformers from their jobbers. In order to facilitate such orders, we append a list of jobbers handling this product.

BALTIMORE, MD.
Chesapeake Electric Co.
Ship Owners Radio Service, Inc.

BOSTON, MASS.
A. P. Merchant & Co.
Ship Owners Radio Service, Inc.

CEDAR RAPIDS, IA.
Western Auto Specialty Co.

CHICAGO, ILL.
Ship Owners Radio Service, Inc.

CLEVELAND, OHIO
Elliott Electric Company
Erner Electric Company

DALLAS, TEXAS
C. C. White Electric Co.

FORT DODGE, IA.
Standard Radio Equipment Co.

FORT WAYNE, IND.
Luxam Electrical Supply Co.

INDEPENDENCE, KANSAS
Daniels Radio Supply Co.

KANSAS CITY, MO.
American Radio Mfg. Company

NEWARK, N J.
Wholesale Radio Equipment Co.
American Radio Equipment Co.

NEW YORK CITY
J. H. Bunnell & Company
Stanley & Patterson
Royal-Eastern Electrical Co
Ship Owners Radio Service, Inc.
20th Century Radio Corp.

NEW ORLEANS, LA.
Electron Engineering Co.
Ship Owners Radio Service, Inc.

NORFOLK, VA.
Ship Owners Radio Service, Inc.

PHILADELPHIA, PA.
Quaker Light & Supply Company
Schimmel Electric Supply Company
Frank H. Stewart Electric Company

PITTSBURGH, PA.
Ludwig Hommel & Company
Robbins Electric Company
Union Electric Company

ROCHESTER, N. Y.
Wheeler-Green Electric Company

SAN ANTONIO, TEXAS
Alamo Radio Electric Company

SAN FRANCISCO, CAL.
Ship Owners Radio Service, Inc.

SAVANNAH, GA.
Ship Owners Radio Service, Inc.

SCRANTON, PA.
Scranton Electrical Construction Co.

SEATTLE, WASH.
Ship Owners Radio Service, Inc.

ST. LOUIS, MO.
McGraw Company

TROY, N. Y.
Hinsdill Electric Co.

Western Jobbers desiring distributing proposition Communicate with our Western Sales Agents

DETSCH & COMPANY
555 Turk Street, San Francisco, Calif.
WESTERN RADIO DISTRIBUTING CO.
1114 L. C. Smith Bldg., Seattle, Wash.



PERFECT ELECTRIC CONTROL
RESIST-O-METER
TRADE MARK

The Resist-O-Meter illustrated is Type A-Filament, **Price $1.80**

WE MANUFACTURE THE PRODUCTS LISTED BELOW

Resist-O-Meters
Type A-Filament
Type B-"B" Battery
Type C-Potentiometer
Type D-Variable Grid Leak

Test-Rite Condensers in following capacities:
Phone .001 mfd.
Grid .00025 mfd.
Grid .0005 mfd.
Grid Leak .0005 mfd. 1-meg.

V. T. Sockets
Engraved Binding Posts
Accessories

Hook up a Resist-O-Meter Then see the difference

A VARIABLE RESISTANCE that *is* variable, not by a series of steps or by a sliding contact, but continuously between the extreme ranges of its terminals without a break—micrometer controlled for accurate adjustment of proper current values of the "A" and "B" batteries.

This idea has been developed—The Scholes Resist-O-Meter.

The Scholes Resist-O-Meter possesses the following additional and essential advantages:

1. It is non-microphonic.
2. It possesses the lowest resistance at full compression (almost zero).
3. It is made of models giving various ranges of control previously not attained (covering every requirement for radio use).
4. It is made in compact and conventional form, requiring minimum room for mounting.

The Scholes Resist-O-Meter has been used for more than seven years by the inventor, Mr. F. A. Rojas, in electro-chemical processes in which exceedingly accurate and constant control is required.

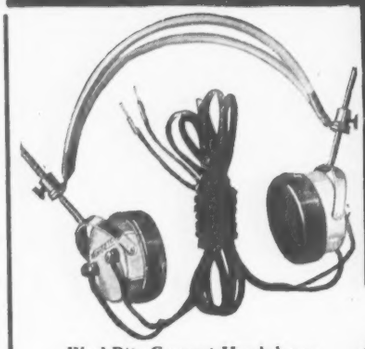
The Scholes Radio & Manufacturing Corporation hold the sole license to manufacture this type of current control. It is sold only under the name "Resist-O-Meter" and fully protected by patents Nos. 1315579 and 1366945 and other patents pending and trade mark rights.

Write Mr. C. F. Smith

SCHOLES RADIO & MFG. CORP.

32 West 18th Street, New York City

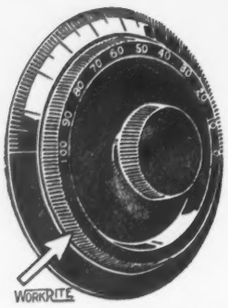
WORKRITE Products WorkRite



WorkRite Concert Headphone

A Big Seller Plus a Long Profit

WorkRite Concert Phones are extremely sensitive and unusually free from distortion. No rough edges to catch the hair. Very light in weight, but sturdy enough to stand up under hard usage. Sanitary head band covered with strong celluloid. The WorkRite Head Phone was designed by one of the oldest and best telephone engineers in the country. The fact that it bears the WorkRite trade-mark assures you that it has been tested and improved until it is the finest on the market. Suggest WorkRite Products to your trade for Christmas gifts. Every radio fan is interested in new radio parts—and WorkRite Products carry a long margin of profit for the dealer. Price—complete with cord, $8.50.



WorkRite E-Z Tune Dial

Over 1,000,000 Sets Need This New Dial!

The flange on this WorkRite E-Z Tune Dial is knurled close to the prominent white figures, making a convenient grip that fits the hand. This radical improvement makes a turn of a hair's breadth possible, permitting unusually fine adjustments. Local and long distance broadcasting can be brought in clearer and more distinctly than ever before with this dial. Made from the finest materials and highly polished; 3½ in. in diameter. This new WorkRite Product offers dealers an unusually profitable opportunity to sell to old customers as well as new. Radio "bugs" who want to improve their sets will want it. Display prominently for profitable sales. In your order, specify whether 3-16 in. or ¼ in. shaft. Price—75c. each.

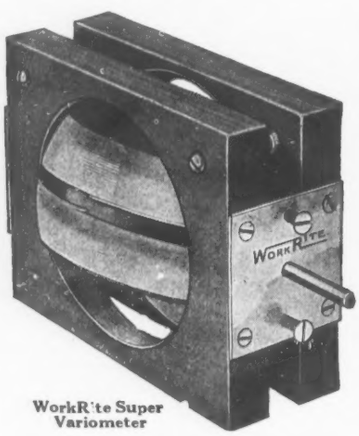
A New Source of Radio Profits



WorkRite Hydrometer

The life of every radio battery can be doubled by filling and testing regularly with a WorkRiteHydrometer. Improper care soon ruins any battery. Dealers will find that although thousands of radio batteries are in constant use, very few of the owners possess a hydrometer. Old and new customers alike are easily sold WorkRite Type "A" Hydrometers. Add this extra profit maker to your radio business and get the big Christmas profits that dealers will make. Price—$1.00.

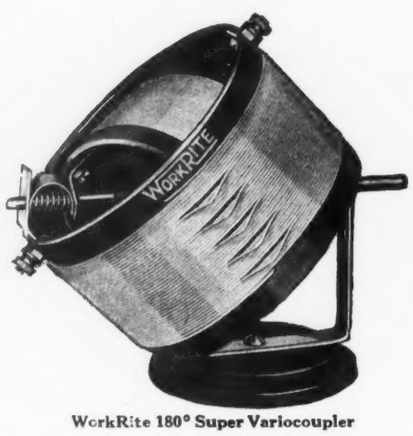
Note NEW PRICES on This "Tuner Team"



WorkRite Super Variometer

Radio fans want this "Tuner Team" the minute they see it. They have a range between 180 and 800 meters. Every state in the Union as been heard on them in Cleveland. Dealers are having remarkably heavy sales on it. Most dealers sell their allotment immediately. One WorkRite Variocoupler and two WorkRite Variometers are guaranteed to give a tuner that cannot be excelled by any on the market.

Leading radio engineers have pronounced the WorkRite 180 Super Variocoupler the best they have ever tested. This assures the radio dealer that it will work right and that it is the best money can buy. The trade-name "WorkRite" is on every variocoupler, which assures complete satisfaction or money refunded.



WorkRite 180° Super Variocoupler

All dimensions and number of wire turns are right for best results. Tunes twice as sharp as the ordinary 90 coupler. Both primary and secondary of Formica. All scratching noises eliminated because contacts are formed by double springs. All metal parts highly polished brass and nickeled. Shaft 3-16 in. Easily mounted on panel or base. New Price—$3.50.

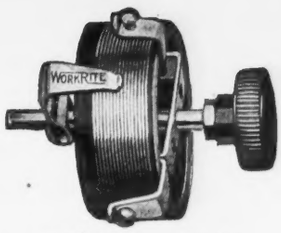
Just the right number of turns and proper air spacing make the WorkRite Super Variometer tune extremely sharp. All windings are perfectly made and connections cleverly concealed. Binding posts placed between stators; 3-16 in. shaft. Made of solid mahogany. Guaranteed not to warp. All metal parts highly polished and nickeled. Two screws furnished. Easy to mount on panel. New Price—$5.50.

Order WorkRite Products for your Christmas trade and you will experience no after-Christmas "complaint rush." You can safely guarantee every WorkRite Product.

All December Orders Shipped by Express the Same Day Orders Are Received

WORKRITE

Products WorkRite



WorkRite Super Vernier Rheostat

Unusual features that have an instant appeal to every radio enthusiast plus an attractive price make the WorkRite Super Vernier Rheostat the fastest selling and most profitable rheostat on the market. By turning the knob, 50,000 different adjustments are possible. Pushing in the knob instantly changes from 6½ ohms resistance to zero. The special resistance wire is non-corrosive, not affected by changes in temperature, and is *guaranteed not to get hot.*

The Fastest Selling Rheostat on the Market!

This rheostat is indispensible on the detector tube when working long distance concerts or code. Indistinct music or voice can be brought out clear and loud by tuning with this entirely new and remarkable rheostat which doubles the audibility of distant concerts. Prominently advertised in the foremost radio magazines. This is the fastest selling rheostat on the market.

Order for your Christmas trade today. Price—$1.50.

Thousands of Loud Speakers Will Be Bought This Xmas

The New WorkRite Concertolas, Junior and Senior, can be added to any set now in operation and assure a clearer and louder tone. Music and voice are brought out accurately and plainly, due to our specially developed materials used in the sound chamber of the Senior and the horn of the Junior. The only metal used is in the special phone units which are built into the instruments and will not be sold separately.



WorkRite Concertola, Jr. With Cord and Phone Unit—$12.00

Thousands of loud speakers will be bought for Christmas gifts. The whole family will be eager to hear the Christmas programs that are to be broadcasted from coast to coast. Dealers are bound to have a last-minute rush. To assure you of profitably meeting this large demand, we will ship all orders by parcels post or express the same day the orders are received. You can cash-in on these Christmas sales and assure your customers of complete satisfaction minus complaints by selling them WorkRite Products. They are the best on the market, retail at reasonable prices and carry a big dealer profit.

Order today. Do not wait unprepared for the big last-minute rush that is certain to come. Display prominently and your radio department will bring in the large profits that the well-stocked radio dealer is bound to make this Christmas season.



WorkRite Concertola, Sr. With Cord and Phone Unit—$24.00

The WorkRite Manufacturing Co.

5542 Euclid Ave. Branch: 2204 Michigan Ave., Chicago. **Cleveland, Ohio**

The WorkRite Mfg. Co.,
5542 Euclid Ave., Cleveland, O.

SEND — TODAY!

Please send me discounts and dealer-information on WorkRite Products—without charge.

.....

.....

EISEMANN

THE advanced design of Eisemann radio units has met with instant favor wherever shown. The concave dial gives a mounting flush with panel. In appearance it is in marked contrast to the usual protruding knobs and dials. Another distinctive feature is the complete self-insulation of each part, making possible the use of a panel of wood, metal, or any other material.

Variometer

Both Rotor and Stator forms moulded of Bakelite. Extremely light in weight. Electrical losses reduced to a minimum.

Price each $8.75





Variocoupler

The primary Tap Switch for tuning the antenna circuit is an integral part of the Variocoupler. No external switch, shielding, dial, or knob necessary.

Price each $10.50

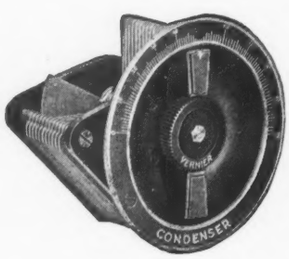
In addition to the units illustrated, other Eisemann products are Head phones, Vacuum Tube Sockets and Audio Frequency Transformers—all made to the highest electrical and mechanical standards.

Variable Condenser
Balanced type

Rigidly constructed. Metal bearings front and rear. Rotary plates balanced, assuring constancy of setting. Vernier equipped.

Capacity .001 mfd.
Price each $7.50





Variable Condenser
Unbalanced type

Aluminum plates accurately spaced eliminating any possibility of "shorts" between plates and assuring a more constant air gap. Vernier equipped.

Capacity .001 mfd.
Price each $7.00

Capacity .0005 mfd.
Price each $6.50

In preparation: Filament Rheostats, Potentiometers, etc.

Eisemann Products are distributed through the Jobbing Trade *exclusively.* Write for discounts.

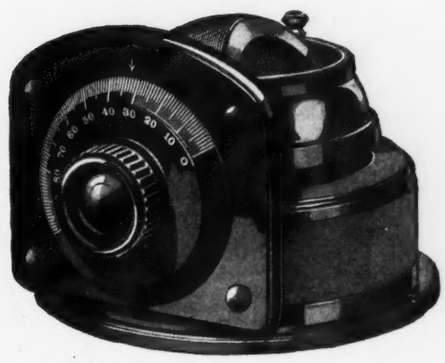
EISEMANN MAGNETO CORPORATION

William N. Shaw, *President*

DETROIT BROOKLYN, N. Y. CHICAGO

ATWATER KENT

RADIO EQUIPMENT



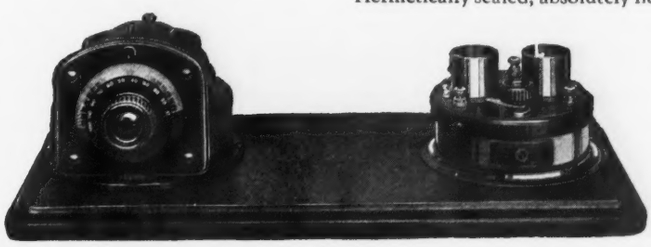
Coupled Circuit Tuner—$14.00

Simplest operation—maximum performance. Takes the place of variometer and coupler. Accomplishes the results with but one adjustment. It is absolutely unaffected by body capacity at dial knob.



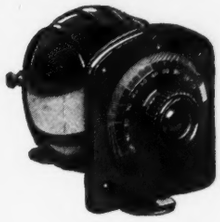
Two Stage Amplifiers—$14.00

Excellence of reproduction. Amplification regulation by small steps. A complete instrument in itself. Compactness. Regulation entirely by knob, no jacks to equip. Transformers protected by steel housing. Short wiring connections eliminate capacity effect. Hermetically sealed, absolutely no moisture troubles.



The two instruments shown above comprise an excellent and complete receiving set. The Coupled Circuit Tuner and Detector Amplifier on the mahogany mounting board present a beautiful appearance.

Mounting Board—$5.00 *Detector and 1 stage Amplifier—$13.00* *Complete Outfit as above, unwired—$32.00*



This instrument carries through the standard quality of Atwater Kent products. For an open set it supplies a finished instrument unsurpassed in both appearance and performance.

Mounted Variometer—$10.00



Atwater Kent Variometers are unexcelled in appearance, quality and efficiency. They are suitable for either table or panel mounting. From the molding of the condensite forms to the final test they are manufactured in one plant.

Variometer with Dial and Pointer—$9.00

The Mounted Variocoupler is designed essentially for a coupled circuit arrangement of highest selectivity at present obtainable. A finished product with engraved bakelite panel. Inductances are tapped so as to permit receiving all broadcasts with good selectivity.

Mounted Variocoupler—$13.00



The Variocouplers are designed essentially for loose coupling. The special method used in winding the rotor effects a maximum reduction in such losses as distributed capacity and high frequency resistance.

Variocoupler—$8.00



ATWATER KENT MANUFACTURING COMPANY, PHILADELPHIA, PA.

Radio Department 4931 STENTON AVE. *Write for Literature*



Make the most of Your Christmas Trade

Sell Crosley Radio Instruments

CROSLEY Instruments and Parts will be your best sellers during the Christmas Season. They are what the consumer wants. A moderate-priced instrument with all the good qualities of the more expensive sets.

The demand for CROSLEY Instruments has been increasing by leaps and bounds. The reason is simple. All of our larger units incorporate one stage of Tuned Radio Frequency Amplification. We were the first to bring this feature on the market and we have developed it to its highest degree. This simplifies tuning, increases the range and clarity and eliminates interference. CROSLEY Instruments are popular wherever they are tried.

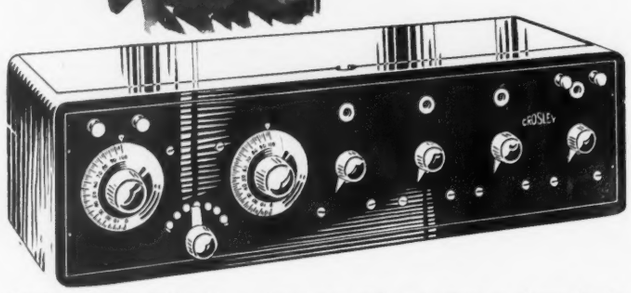
Advertisements such as this and others of a similar nature will appear in all the leading Electrical and Radio Publications during December and the succeeding months. Combined with our previous national advertising, our continued publicity will create a demand for CROSLEY APPARATUS such as you have never experienced before.

You cannot afford to be without a supply of CROSLEY Instruments during the Christmas Season.

Write for fully descriptive catalog and discount sheet.

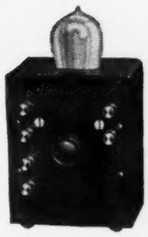
CROSLEY
BETTER-COST LESS
RADIO

CROSLEY MANUFACTURING CO.
Department EM 5
Cincinnati·Ohio



Crosley Receiver Model X. A four tube outfit the same as shown in the above scene. It consists of tuner, one stage of Tuned Radio Frequency Amplification (the feature that has made our larger sets so popular) Detector and Two Stages of Audio Frequency Amplification in a beautiful mahogany finished cabinet. It will bring in distant stations loud and clear. Price without phones, batteries or tubes.....$55.00

Announcing
New Crosley Units for Experimental Purposes



CROSLEY DETECTO-UNIT. Consists of socket, Rheostat, grid condenser, leak, etc., with the proper binding post connections. Mounted on a hard rubber panel in mahogany finished cabinet, it will add an audion detector to any set. Any standard tube can be used or, by using a Crosley adapter, a 1½ volt tube can be used. Price without tube, $4.00.

These units are especially designed to aid the experimenter in working out different hook-ups and experiments. In this manner, the various combinations can be tried until the best working conditions are obtained. All that is necessary is to make the proper connections between the binding posts. This is very convenient for the interchange of the units and fills a long-felt want.

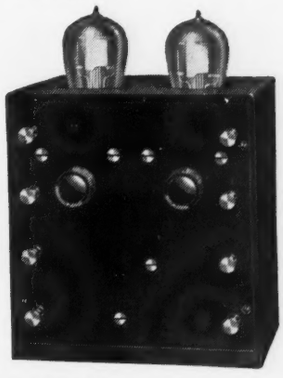
The prices of these units are exceptionally low. They are built from standardized parts and are guaranteed to give wonderful service.



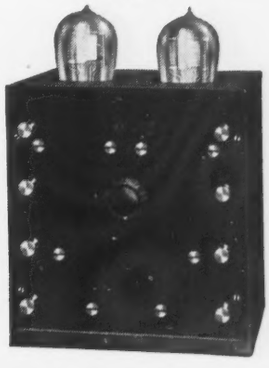
CROSLEY CONDENSO-UNIT. As a condenser is required in a great many hook-ups, we have incorporated a Crosley Model "C" condenser in a mahogany finished cabinet and hard rubber panel with the necessary connections. Can be added to any outfit. Price, $5.00.



CROSLEY TUNO-UNIT. Consists of a vario-coupler mounted in a neat mahogany finished cabinet and hard rubber panel. The primary and secondary are connected to the binding posts. Tap switch furnishes 7 variations of the inductance. Can be used in any hook-up. Price, $7.00.



CROSLEY DE-AMPLO-UNIT. Consists of audion detector and one-stage amplifier neatly mounted in a mahogany finished cabinet. Crosley standard parts are used throughout including Crosley Sheltran Transformer. All the necessary binding posts are provided to connect up in any hook-up. A very convenient unit to add to a crystal detector set or used in connection with the experimental units shown here. Price without tubes, $11.00.



CROSLEY DUO-AMPLO-UNIT. A Two-Stage Audio Frequency Amplifier using genuine Crosley Sheltran Transformers. Unlike some of the more costly units, this amplifier is not resistance coupled, but is the highest type of modern construction. The standard tubes can be used, or, by means of the Crosley adapter, 1½ volt dry cell tubes can be employed. Price without tubes, $14.00.



CROSLEY SOCKET TUBE ADAPTER. Complete with necessary screws and washers. It will fit any standard socket making it possible to use a 1½ volt dry battery tube. This is a great boon to those who do not want to use a storage battery. When used with the Crosley V-T Socket, it can be mounted on either panel or base. Price complete, $.60.



CROSLEY RECEIVER MODEL VIII. A new set we are offering consisting of one stage of Tuned Radio Frequency Amplification (the feature that has made our Model X and Model VI so popular) detector tube and one-stage of Audio Frequency Amplification. Mounted in a neat mahogany finished cabinet with engraved formica panel, this instrument is midway between the Model VI and the Model X. It will receive distant broadcasting loud and clear. Price without tubes, batteries or phones, $48.00.



CROSLEY HARKO SENIOR MODEL V. A unit consisting of tuner, tapped inductance and audion detector that has given wonderful results. One listener in Minnesota hears Schenectady. In beautiful mahogany finished cabinet and formica panel. Price without phones, batteries or tubes, now $15.00.

RADIO FREQUENCY TUNED AMPLIFIER UNIT. The same as we have had on the market for some time. Price now, $12.00.

CROSLEY TWO STEP AUDIO FREQUENCY AMPLIFIER in mahogany finished cabinet and formica panel. Price now, $17.00.

CROSLEY MODEL VI. New Price, $28.00.

These units are priced so low that it is no longer of any advantage for the amateur to build his own apparatus. By buying the desired units and hooking them together, he will be able to get any connection or size of set desired.

If your dealer has not already made arrangements to handle this line, ask him to do so at once.

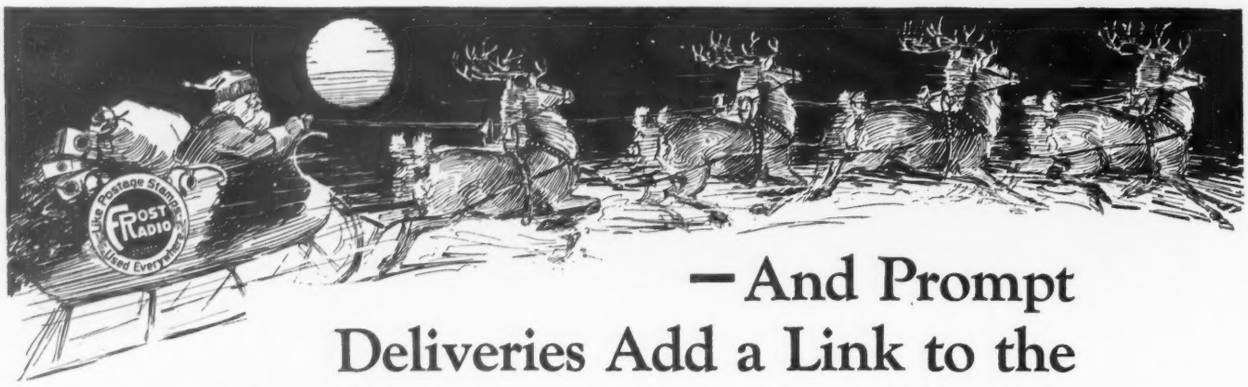
Jobbers and Dealers

You will want to add these units to your line. We are ready to make immediate shipment at your usual discounts.

CROSLEY
Better—Cost Less
RADIO

Crosley Manufacturing Company
Dept. EM5, Cincinnati, Ohio

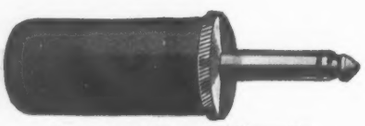
CROSLEY
Better—Cost Less
RADIO



—And Prompt Deliveries Add a Link to the FROST-RADIO Chain of Satisfaction

Deliveries of **Frost-Radio** Christmas merchandise will exceed any previous record for speed and volume. We will bend every effort to eliminate delays, shortages and retain the good-will of our customers. We are organized this year to assure our Electrical-Radio Jobbers "at once" deliveries on every item in our entire line.

A New Plug for 60c

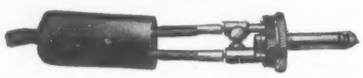


No. 139—All Terminal Plug—60c

Arrived In Time for Xmas!

The new member of the *Frost-Radio* family

This plug (shown above) will be the talk of the Radio field. Priced within reach of every purse. A handsome, highly finished, strong, light weight plug with conductive parts of machined brass. Handle is one piece and turned from solid insulating rod. Screw binding post terminals take cord-tips and terminals of all types. Adjustable brass thumb screws connect wire to plug and insure positive contact. No tools needed. Unnecessary to cut telephone tips. Not affected by body capacity and fits any standard jack.



Showing screw binding post terminals with phone cord tips inserted.

—And We Wish You a Merry FROST-RADIO Christmas!

Jobbers, Dealers and Radio retail buyers: We thank you for the support which you have rendered us in putting **Frost-Radio** on the Radio map as a quality line that is just right, in materials, workmanship and finish. It is our hope that the satisfaction in being associated with this line will be amplified to a greater degree as time advances.

Herbert H. Frost

You compliment the excellence of your jobber's judgment in asking for these *Frost-Radio Leaders:*

Frost-Radio Extension Cord and Plug — Frost-Fones
Cunningham Tubes — Frost-Radio Improved Jacks and Plugs
Frost-Radio Receiving Transformers — Frost-Radio Protector
Frost-Radio Tuning Coil — Remler Radio Apparatus

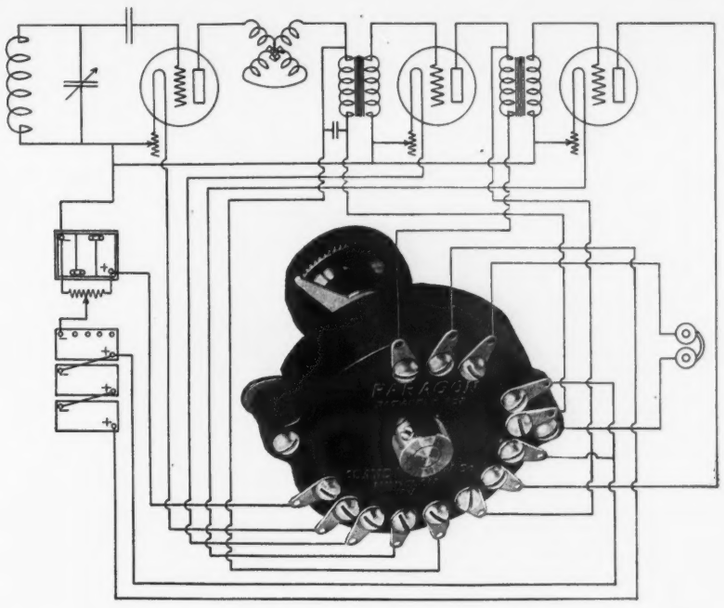
Like Postage Stamps — FROST RADIO — 154 W. LAKE ST. CHICAGO, ILL. — Used Everywhere

HERBERT H. FROST

NATIONAL FACTORY DISTRIBUTORS TO THE ELECTRICAL-RADIO JOBBER

154 W. LAKE ST. CHICAGO, ILL.

INSTANT—POSITIVE—NOISELESS



Paragon Stage Control Switch

Plugs and jacks are now obsolete. The PARAGON Stage Control Switch combines the functions of three multi-circuit jacks and the telephone plug. It controls, automatically and progressively, all the filament circuits, plate battery circuits and input and output circuits of the detector - two - stage amplifier.

Switching from stage to stage is instantaneous, positive, noiseless. All battery circuits are protected. The wiring of amplifier is simplified.

The switch base is made of molded Condensite. One piece serves as a commutator support and housing. No moving switch parts are open to view when switch is in position on panel. A ratchet gives proper feel and locates switch position. The wiring diagram, illustrated above, shows the method of connection when this new PARAGON switch is employed for control of detector and two-stage amplifier. The switch may also be used for an unlimited combination of vacuum tube circuits. 2⅜" in diameter, ¾" in thickness. Price $3.00.

Also Manufacturers of
PARAGON
Radio Telephone Transmitters
V. T. Control Units
Rheostats
Potentiometers
V. T. Sockets
Amplifier Transformers
Detectors
Control Dials
Amplifiers
Receivers
Switches
Variometers

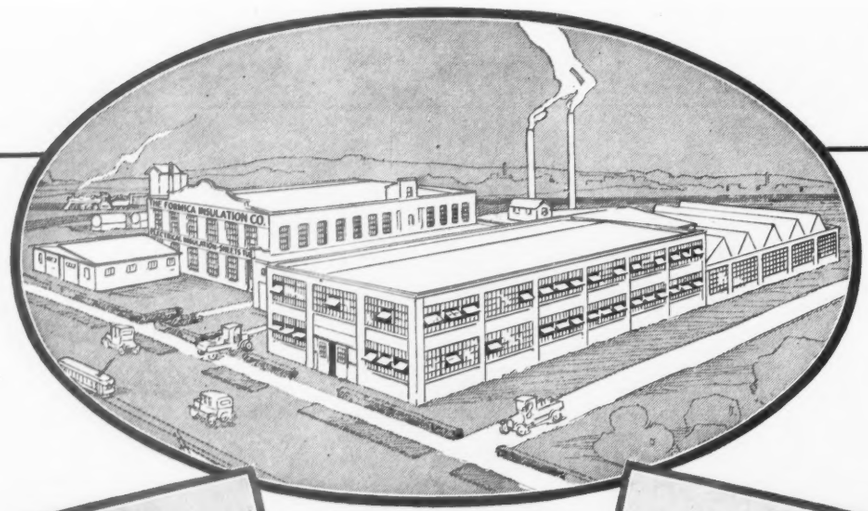
We have just issued a new illustrated catalogue of Paragon radio parts. A copy is yours for the asking.

ADAMS-MORGAN CO., 14 Alvin Ave., Upper Montclair, N. J.

PARAGON

Reg. U. S. Pat. Off.

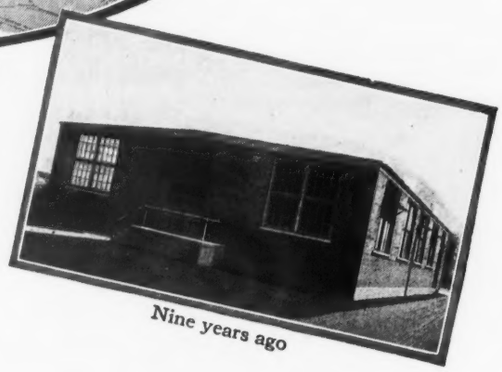
RADIO PRODUCTS



The Formica plant today



A year ago



Nine years ago

-Appreciation and Progress-

NINE years ago the Formica Insulation Company began business in the small building shown at the right.

Two years ago the demand for the product from every branch of the electrical industry, forced a move to the building shown at the left where capacity was greatly increased.

Now, recently constructed additions to that plant have brought into existence the plant shown at the top—a plant with more than twice the capacity of the company—a year ago—and the largest in the industry.

Appreciation of a better insulating product—one that at very slightly increased costs removes thousands of troublesome and costly possibilities for insulation failure—has built the business.

If you do not know or use Formica write us now for literature and prices

THE FORMICA INSULATION COMPANY
4635 Spring Grove Ave., Cincinnati, Ohio

FORMICA
A Laminated Phenolic Condensation Product
SHEETS TUBES RODS

"Dependable Radio Since 1910"

DORON



Sell Radio That You Can Safely Recommend

There is a big market for radio apparatus that can be depended upon. The market has been flooded with so much cheap stuff that the radio buyer is forced to depend upon your recommendations. If you sell and recommend radio apparatus that you are not positive is dependable, you are gambling with your reputation as a reliable radio dealer and harming future sales.

Doron Brothers have been manufacturing "Dependable Radio" since 1910. Our new Non-Regenerative Receiving Set is unequaled for clearness of tone and receiving distance. By using a loud speaker, signals from stations 600 to 700 miles distant are brought in with sufficient strength to secure good results.

The Radio Frequency Amplifier increases the weaker signals to the point where they operate the detector efficiently. Being of the non-regenerative type, this set eliminates all harsh sounds so common in ordinary sets. Will tune to wave lengths of from 200 to 500 meters.

This set consists of our patented Vario-Coupler, Variable Condenser, Controls for One-Stage Radio Frequency, Amplifier, Detector and Two Stages Audio Frequency Amplifier.

Discounts are right for a profitable business. If you are tired of the "come-backs" experienced from handling cheap radio, we want you to send for complete information on "Dependable Radio."

Doron Brothers Electric Co.

Hamilton, Ohio.

325 N. B Street

Doron Bros. Electric Co.
Hamilton, Ohio

Send me complete information on "Dependable Radio"—radio that I can safely guarantee.



Indorsed!

Melco Dealers will not be surprised at the official approval by the Tribune Institute and Evening Mail Radio Institute, of the Type 400 Receiver and Amplifier.

They know what it will do and what it has done in the way of perfect long distance and local broadcast reception.

Melco Units represent surprising value, quality, workmanship and performance considered.

They are the outstanding sets on the market today.

Write us for full literature, discounts and our attractive offer.

Save Sales Company

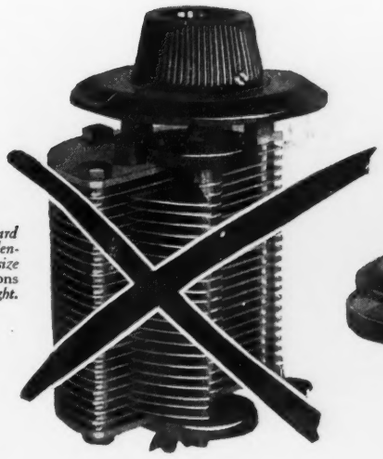
Sales Engineers

261 Broadway, New York City

Manufactured by the Mortimer Radio Corp., New York City

MELCO TYPE 400

Tuner and Detector **Two Stage Amplifier**
with the Litz Wire Wound Super-Sensitive Variocoupler



This is the standard air variable condenser. Compare it in size with the Variadons *appearing at the right.*

Below is a picture of the Variadon *as combined with your own dial for back-of-panel mounting.*





The Dubilier Variadon *as supplied from the factory, with graduated scale and knob*

The New Variadon—

No thicker than an ordinary dial

THE following are the more remarkable features of the new Dubilier Variadon, the first practical mica variable condenser:

1. It is no thicker than an ordinary dial. Yet it serves the purpose of an air-condenser with several dozen plates.

2. It can be mounted on any convenient part of a receiver case (front or rear of panel).

3. Its adjustment cannot be destroyed by ordinary shocks, falls or vibrations. Hence short-circuits are practically impossible.

4. It makes the vernier unnecessary.

5. It can be used as a grid-leak condenser, so that new tubes or different tubes can be adjusted to suit the receiving set.

Capacity .0004 or .0006 mfd. Retail price, $2.50.

Capacity .001 mfd. Retail price, $3.50.

Supplied complete with dial and knob.

Other Famous Dubilier Products

Dubilier Micadons
Micadons are little mica condensers which reduce tube noises. Made in a wide range of capacities. Price 35 cents to $1.50 each, according to capacity.



The Ducon
Screw the Ducon in any lamp socket and thus do away with the antenna. The broadcasting station comes in loud and clear.
Price $1.50.



The Du-tec
A chemical rectifier of which every spot is sensitive. Eliminates tedious and frequent adjustment of "Cat Whisker." Does not oxidize with age. Price mounted, 30c each.



DUBILIER Condenser & Radio Corp.

48-50 West 4th. St. N.Y.

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WASHINGTON, D. C., Munsey Building
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Distributed in Canada by General Electric Company, Ltd., Toronto



The SANDMAN'S STORY



Catalog Number Four contains Marvelous article on tuning Receiving Sets. 10 cents brings it to you

On a Tuska Radio Receiver, every evening you can hear "The Sandman's Story". This delights the children. Later comes entertaining Radio Broadcasting for grown-ups.

Tuska Radio will bring dependable broadcasting into your home, A Tuska Radio Receiver makes a wonderful Christmas Present.

Tuska Radio is substantial, reliable, dependable and recognized. Inspect today at your dealer's.

THE C. D. TUSKA COMPANY

31 Bartholomew Ave. Hartford, Conn.

Pacific Coast Office, 711 Mission Street, San Francisco, Calif.

TUSKA RADIO

Established 1911

Radio Xmas



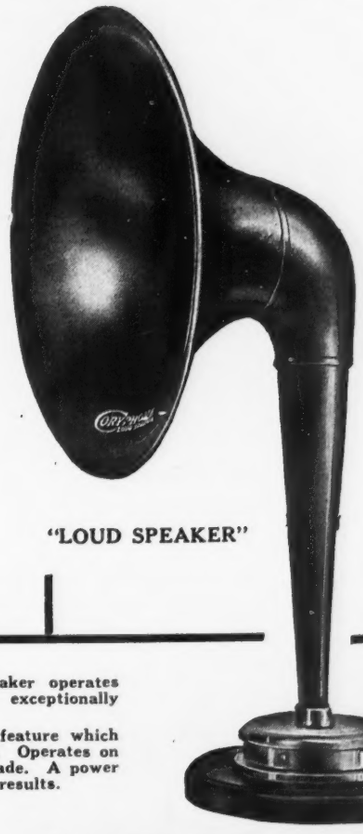
"Mastertone"
List $25

A
VERITABLE CHRISTMAS
TREE AWAITS JOBBERS
AND DEALERS WHO
DISTRIBUTE

CORYPHONE

"LOUD SPEAKER" "MASTERTONE"
REPRODUCERS AND "RADIO" HEADSETS

IF YOU ARE NOT FAMILIAR WITH THE MANY EXCLUSIVE SELLING POINTS, LET US TELL YOU ABOUT THEM —WIRE OR WRITE TODAY FOR FULL PARTICULARS



"LOUD SPEAKER"

"Loud Speaker" and "Mastertone" Speaker operates without an "A" Battery. They are exceptionally sensitive and accurate in reproduction.

Type Loud Speaker has an adjustable feature which compensates for receiving set conditions. Operates on detector or any number of steps in cascade. A power tube on the last step gives remarkable results. List $45.00.

"Radio" Headsets are manufactured in 1000 and 1600 Ohm Single; 2000 and 3200 Ohm Double Receiver Headsets. The Receivers are perfectly synchronized, very sensitive, and true in reproduction. Many exclusive features make them exceptionally desirable. For Professional and Amateur Use.

List $4.75, $6.00, $8.00 and $12.00 respectively.

CHAS. CORY & SON INC.

Established 1845

PHILADELPHIA 182-187 VARICK ST., NEW YORK, N. Y. SAN FRANCISCO

Get The Facts About "Engineered Radio"

and December Express Shipments

This year many dealers will be disappointed in receiving ordered radio goods, due to the freight tie-up. Other dealers will find that increased sales that are bound to come due to cold weather and a big Christmas trade will deplete their supplies — leaving a small stock at a sales bcom period. To meet these conditions, *we will ship our products by express or parcel post the day the order is received.*

"Engineered Radio" is the latest and most remarkable development in radio today. Great precision and skill plus good materials produce radio equipment that any dealer can safely guarantee to receive stations 1,000 miles and more, distant. You will have calls for radio frequency. The coupon will bring you complete details — facts that you should know.

Express shipments plus radio that you can safely guarantee equips any electrical dealer to meet the Christmas demand promptly and profitably.

THE UNITED RADIO LABORATORIES, INC.

"Engineered Radio"

414 East Pearl Street, Cincinnati, Ohio



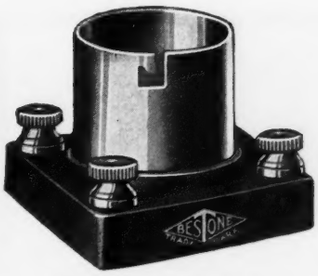
The United Radio Laboratories, Inc.
414 East Pearl Street, Cincinnati, Ohio

SEND TODAY

Please send me, without cost, complete information on "Engineered Radio" and radio frequency.

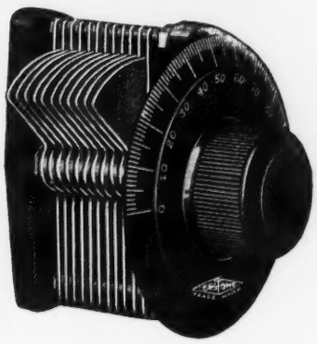
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"Bestone" V. T. Socket (Metal Shell—Bakelite Base)

Strong contact springs assuring positive contact. No. 724. **List $1.00.**



"Bestone" Variable Condensers

Mechanically and electrically perfect.
No. 723. 23 Plate. .0005 Mfd. **List $3.50**
No. 743. 43 Plate. .001 Mfd. **List 4.50**



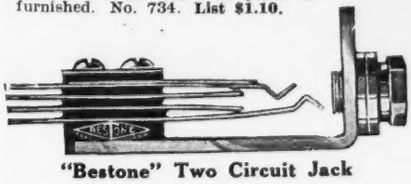
"Bestone" Potentiometer

A correctly designed potentiometer with a two inch molded dial. No. 764. 300 ohms. resistance. **List $1.50**



"Bestone" Rheostat with 2 in. Dial

Similar in construction to regular rheostat except that a two inch molded dial for front of panel is furnished. No. 734. **List $1.10.**



"Bestone" Two Circuit Jack

German silver contact springs with sterling silver points. Supplied with two nickle plated washers for proper mounting.
No. 730. Closed Circuit. **List $ .70**
No. 731. Open Circuit. **List .60**
No. 732. Double Circuit. **List .90**

Quick Service

in

WIRELESS BESTONE TRADE MARK APPARATUS

Radio Apparatus

Also DICTOGRAPH Head Sets and Loud Speakers

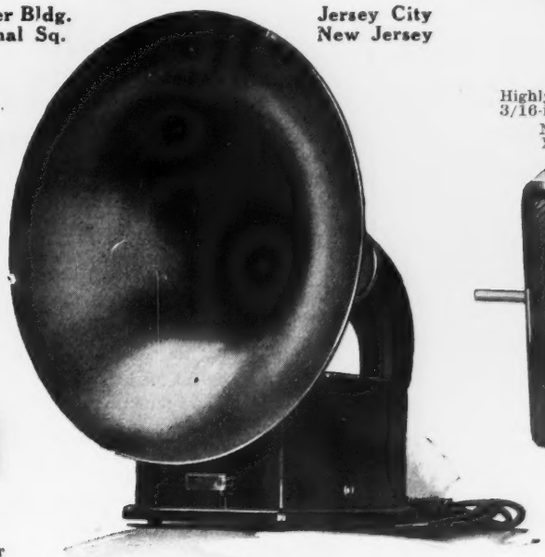
Wire or phone us your orders now to ship by express for your Christmas Sales.

Be prepared to meet the certain demand for radio presents and that of the boys who receive cash for Christmas.

We are fully prepared to render you prompt service and attractive discounts on a full line. ***Don't delay.***

Frederick H. Pruden
Incorporated

Lerner Bldg. Journal Sq. **Jersey City New Jersey**



"DICTOGRAPH" LOUD SPEAKER

The last word in simplicity and efficiency. **List $20.00,** including a five-foot cord.



Extremely sensitive and distinct-pure and clear tonal qualities. 3000 ohms. **List $8.00**



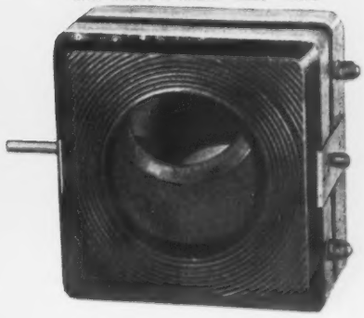
"Bestone" Molded Vario-Couplers (With 3 in. Dial)

This apparatus is molded of "BESTONE" moisture-repellent dielectric and is wound with No. 20 double silk covered wire on a molded tube 4 in. in diameter. The winding on the primary is divided into 16 taps—8 taps of 7 turns each and 8 single turn taps. This method of control assures maximum selectivity.
No. 712 (with 3 in. Dial, 150 to 600 Metres) **$8.00**
No. 714 (with 3 in. Dial, 150 to 580 Metres) **7.00**



"Bestone" Dials

Highly polished bakelite. Made for 3/16-in. or ¼-in. shaft.
No. 728. 3 inch. **List $1.00**
No. 729. 4 inch. **List 1.25**



"Keystone" Molded Variometer

This variometer is well adapted for amateur and telephone receiving sets. Covers effectively a wave length range of 150 to 580 meters. Furnished in natural wood finish or black bakelite finish. No. 500M. **List $5.00.**

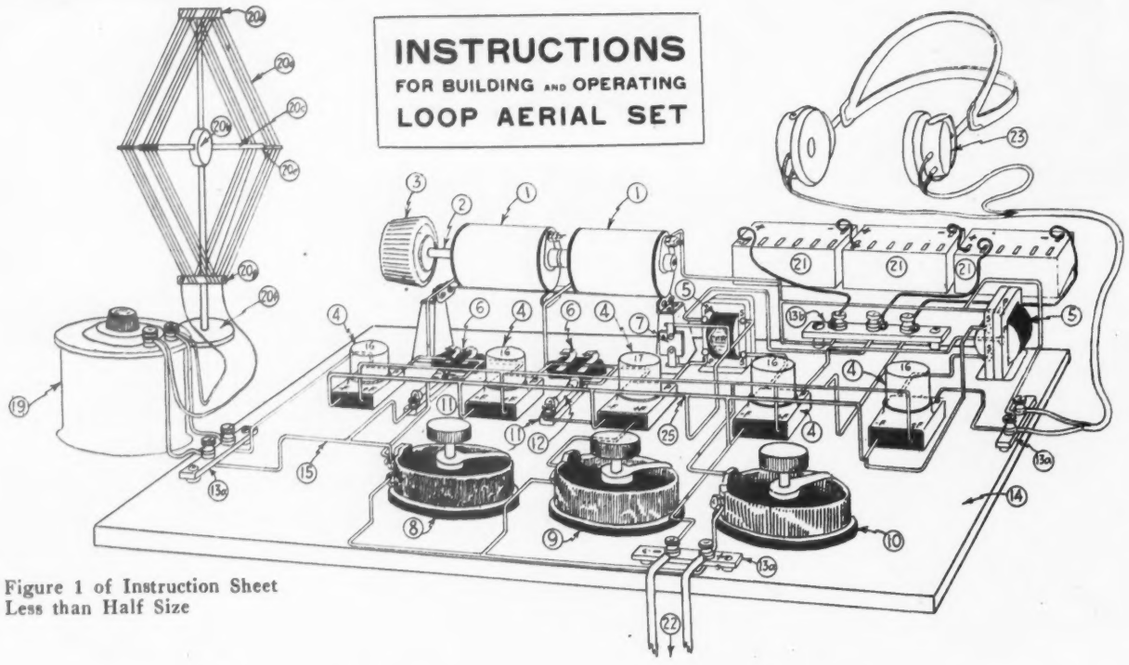


Figure 1 of Instruction Sheet
Less than Half Size

Free to every Asker

Complete Plans and Specifications For the Building and Operation of a Simple and Remarkably Efficient Radio Frequency Receiving Set

Cotoco

Dealers! Make them Flock around your Windows

Display these free instruction sheets in your windows, show also all the materials listed for making the set and show a price for the lot. You will be surprised by the number asking for diagrams — surprised and pleased by the number of new customers.

How many shall we ship you through your jobber?

No. of Instruction Sheets .....

No. of Window Sheets .....

Jobber's Name .....

Address .....

.....

Presents the Results of Exhaustive Laboratory Research to the Radio Enthusiasts of America

These free instruction sheets show by diagram the exact position of every piece of apparatus, every wire, every soldered connection of a Radio Frequency Receiving Set of unusual range and easy operation. Not only is it strikingly sucesssful in the hands of experts but every amateur with ordinary mechanical ability finds it easy to assemble and get superior results from the very first. In fact, this Radio Frequency Set we believe represents the most economical method of getting music and messages of a quality that equals the tone purity of the finest phonographs. Hundreds of sets have already been made with uniformly good results.

COTO-COIL CO.
Manufacturers
87 Willard Ave., Providence, R. I.

"—and they sell 3 to 1"

The story of a Philadelphia electrical merchant who found a cure for his radio blues

IT WAS morning and raining, a typical slow Philadelphia drizzle. Business was bad in the radio department of John Haddon's electrical store. So bad in fact that the proprietor's countenance reflected the weather's gloom. With hands thrust deep in pockets he sauntered disgustedly about certain well stocked counters — counters filled to overflowing with a hetrogeneous mass of radio supplies. What a heathenish collection of coined names they bore. He frowned.

"No wonder people don't buy the blame junk. For two cents I'd dump the whole mess into the Delaware and call it quits—if I could only get just one real live line to take their place."

Grumpily he wandered back to the office and plumped heavily into his protesting, but faithful chair.

Haddon didn't feel like work. A copy of the "American Magazine" lay on the desk. Carelessly he leafed the pages in the advertising section. Suddenly he paused, looked, then started to read. "The Fun in Radio is Building Your Own" it ran. He adjusted his glasses and went on.

> "There is far more pleasure in building your own radio set than in just buying it ready made. When you make it yourself you know the purpose of every part. Experimenting to get distant stations becomes an absorbing game.
>
> "The Sleeper Radio Corporation offers a wonderful series of construction sets. All the difficult work is done. Any set can be built in the house with just the ordinary home tools. The Sleeper Radio Corporation's skilled mechanics have done all the tedious, uninteresting work for you. You get the fun of putting it together following out the hook-ups and tuning in for distant broadcasting stations."

Haddon stopped reading, jumped up, pounded the desk.

"That's the stuff. That's what'll sell. That's what I want."

He paced the floor. He had to go to New York soon anyway. He'd go today and see this concern.

At two o'clock that afternoon Haddon walked into the offices of the Sleeper Radio Corporation at 88 Park Place, New York. "I want to see the boss" he told the telephone operator.



"Mr. Sleeper is very busy."

"Tell him *I've got to see him.*"

The lady with the head 'phones looked at him again, and something about his jaw told her he'd stay until he did.

The rest of the story can best be told in Mr. Haddon's own letter to Mr. Sleeper.

Dear Sleeper—

Well it's been four months since I had that long confab with you in New York. I guess you know by the repeat orders that I am more than satisfied, but I want to tell you so myself.

When I took that trial set home that night I made up my mind to try it out on my own boys, one twelve and the other sixteen. I figured that if they could put it together without trouble that most any one could. Well, they started in almost as soon as I got inside the house and were done just in time to hear the WJZ announcer say "Good night."

Say, those words sure were music to my ears! They meant the start of a real radio business that has wiped out all the old scores and opened up a new field that I haven't begun to scratch.

"I sell on an average of three Sleeper construction sets to one complete set of any make. Then, too, these amateurs seem to be always buying more parts to increase the range of their sets. That 'Radio and Model Engineering' monthly you publish always has some new kink they want to try out. Why they come in and point out the things they want from the magazine itself. Will be in New York Saturday and want to talk to you about some new window displays.

Sincerely,
JOHN HADDON."

NOTE: *With the exception of Mr. Sleeper's name, the others used in this article are for obvious reasons fictitious. The article is based on fact.*

That's the story and you probably have already decided that you, too, need a little more profit from your radio business. Perhaps the best way to find out just how successful you can be with Sleeper Construction Sets is to do like Mr. Haddon and order a sample one. Use the coupon below to obtain dealer discount or better yet, write us for more details as to your own problems. We shall be glad to assist you in any possible manner.

THE SLEEPER RADIO CORPORATION
Dept. 8, 88 Park Place, New York City.

I desire to prove to myself just how easily The Sleeper Radio Construction Sets can be built. Send me C.O.D., at 25 per cent off the list price of $45, one of the popular Sleeper No. X-1900 Sets with which Mr. Montgomery, Vice President of the Fort Worth Life Insurance Company, Fort Worth, Texas, heard in a single evening 37 broadcasting stations in 17 different states, including California, New York and Michigan. Also send me complete data on how to make money selling Sleeper Sets.

Name .....

Street .....

City..... State.....

NOTE: *In case you desire to get started at once we will ship you six of these fast selling Sleeper Sets C.O.D. at 33 1/3% off the list price of $45, also advertising and display material to assist your sales work.*

Be sure and see
The January 1923 Issue
A Special Lighting Fixture Number

Advertising Forms Close
December 15th
Electrical Merchandising
Tenth Avenue at 36th Street, New York

GLOBE

STANDARD PHONES
for Fifteen Years

Globe Phones and other Globe super-sensitive instruments for sound detection and amplification have a world reputation for excellence. The name Globe has come to be accepted indicating as standard quality by expert judges of phones. So the latest perfected style of GLOBE radio headsets are named GLOBE STANDARDS. No better phones are made. Even GLOBE JUNIORS test to compare favorably with phones that sell at nearly double the price. SELL GLOBE PHONES and you sell to satisfied customers.

Globe Standards
As illustrated. 2,200 ohms. Wide head band. Large, hard rubber ear cups **$8.00**

Globe Juniors
Light weight, 2,200 ohms. Superior value at the price **$6.50**



Mahogany Case and Horns
of laminated wood, like the finest phonographs. We confidently predict that this sweet-toned amplifier for home use will entirely supplant the Tin Horned Loud Speaker. Comparison with any metal horned instrument will sell the GLOBE every time. **$37.50**

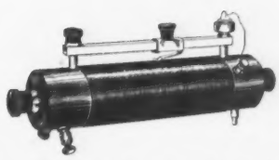
Jobbers—write for our attractive Sales Proposition

Globe Phone Mfg. Co.
Reading, Mass.



GLOBE ANTENNA PLUG
There's a definite and growing demand for Antenna Plugs. Here is the best one. Seven different capacities secured by three binding posts. **Safety electrical fuse** to prevent destruction of sets by current surges. More than worth the small extra cost. **$2.50**

GLOBE CRYSTAL SET



Simple, compact, efficient. Supplied with tested crystal. Offers dealers a moderately priced set that will operate excellently on local broadcasting. Volume sales easy at this price **$6.50**

The Hit of New England

SE-AR-DE

Look for the Trade Mark on Every Piece

47 Years—Manufacturers of Scientific and Other Equipment—47 Years

Order today by mail or wire. We will send by express your requirements of the SE-AR-DE Line

For Your Xmas Trade

Don't hesitate to stock. Many boys will get money for Xmas and after the rush is over they will be looking for parts to build their own RADIOS.

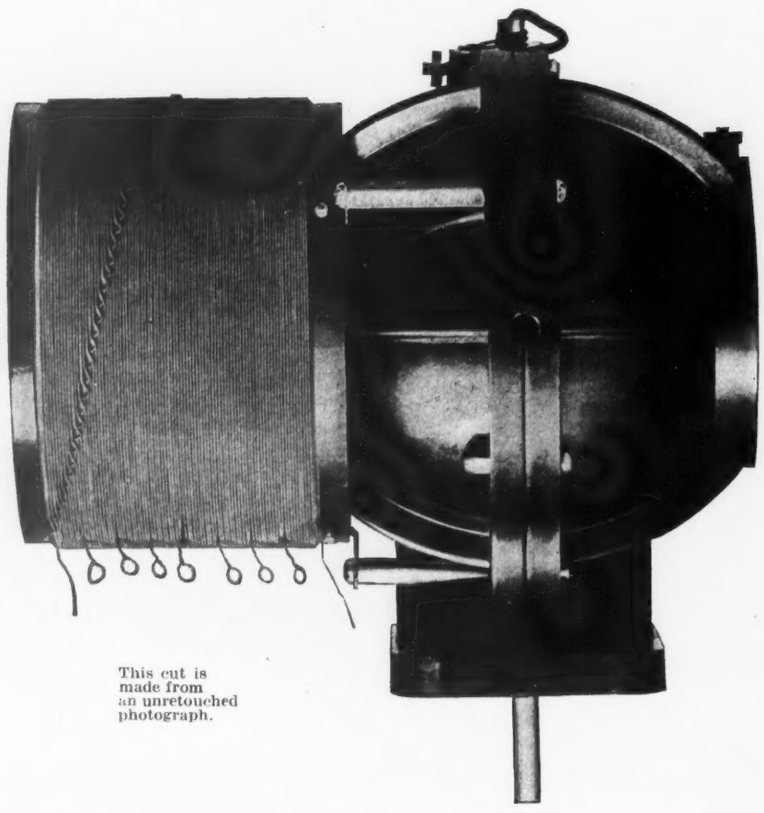
To responsible dealers and jobbers we will mail our new Catalog on request, showing our comprehensive and complete line of Radio Parts—together with prices.

No. 165 Radiometer with Bank Wound Inductance $13.00

Wave Lengths Range 180 to 3250 Meters

X Radiometer only $8.00
X B. W. Inductance only 4.50
X (Not mounted.)

We are carrying Extensive Advertising in RADIO NEWS and RADIO *to help you sell.*



This cut is made from an unretouched photograph.

R. MITCHELL & CO.

255 Atlantic Avenue **Boston, Mass.**

Xmas Gifts in Radio

Wire your orders today!

Specifications

Cabinet of Solid Mahogany Panels. Bakelite Satin-finish Condensers, Rheostat, Knobs, Dials, and Binding Post Bakelite Nickel Plated. All connections dry soldered. All wiring covered. M. R. Cambric tubing, coils all wound. Litz wire.



Capacities

Wave length, 175 to 750 meters

Wave Range Code Signals, 1500 miles. Voice and music 750 to 1000 miles. No distortion. No static. Easily Tuned, 100%.

More Volume Than Any Regenerative Circuit

Radio Detector and 2-stage Amplifier. (Tubes and Batteries Extra) List $110.00

Radio Frequency Eliminating the Use of Transformer

The C. R. C. Circuit Eliminates the use of transformers. The first tube acting as a filter to the detector. Removing all distortion before amplifying signals, voice and music and by retaining all Electrical Energy we get enough volume from one Stage of Radio-Frequency on one tube to hear voice and music in a room from the ordinary headset—without using a loud speaker.

This set will prove a big Xmas winner
Wire us today to ship by express

This Counter Display Builds Up Sales

A complete set of blueprints, including templates of front and inner panel. Wiring diagram. Specifications and capacities of parts to build a 1-Stage Radio and Detector, using the Marvelous C. R. C. Circuit, including one set of C. R. C. Coils — all mounted ready for use—For $5.00.

One Set To Each Dealer
For Counter Display Only

CIRCLE RADIO COMPANY

5 Columbus Circle

New York N. Y.



No. 301 No. 302 No. 303

'Tis the Radio Xmas



Michigan Receiving Sets ARE LIVE Holiday SELLERS

All you need to do is to let the public listen in—**they'll buy!**

The dealer with the "Michigan" line will get the pick of the business, because Michigan Sets give the biggest radio-dollar's-worth for every dollar of the retail price.

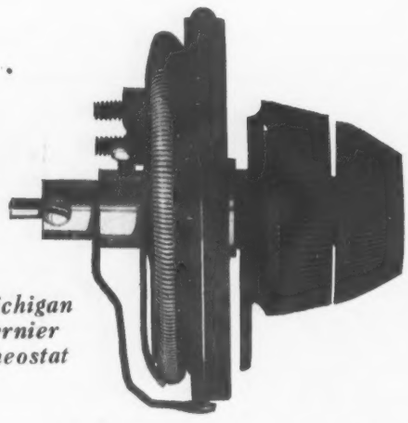
Michigan "Senior" Set

Above illustrated is a *regenerative* set, built under Armstrong License (U. S. Patent No. 1 113. 149). It comprises tuner, detector and two stages of amplification; has a very broad range and is easy to understand and operate.

A special feature (one of many) is the patented Michigan Split Hair, Vernier Dial Adjuster which makes close selection tuning an easy matter.

The Michigan Vernier Rheostat is wonderfully smooth in its operation and permits that fine control of the filament current which is needed to obtain maximum detector action.

Cabinets are simply beautiful—fine examples of the famous Grand Rapids woodworkers craftsmanship.



Michigan Vernier Rheostat



Michigan "Split Hair" Vernier Dial Adjuster

List Price $125.00

Send for Circular and Discounts

MICHIGAN RADIO CORPORATION

GRAND RAPIDS, MICHIGAN



Xmas Concerts Assure Enormous Recola Sales

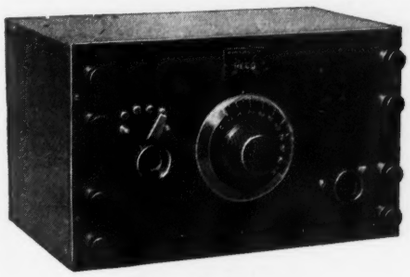
Loud speakers will be in great demand this Xmas season so that the whole family can enjoy the Xmas concerts that will be broadcasted all over the country. Immense numbers will be given for Xmas gifts. The radio dealer has the biggest opportunity in the history of radio to make volume sales and large profits.

The Recola reproduces music and voice in large clear tones. No grating noises, blatant tones or sound distortion because of the non-vibrating sound chamber—a remarkable Recola feature that has produced remarkable sales wherever demonstrated. Cast aluminum base and sound chamber, horn of spun brass finished in nickel; base and sound chamber velvet aluminum finish protected by transparent lacquer covering. Can be used with any standard receiver. Price $12.50.



Reco Tuning Outfit

Simplicity of operation of the Reco Tuning Unit is due to correct design of tuning system, which gives high degree of amplification and pureness of tone. Thus unit is a variable inductance which is required in practically every radio circuit. Can be used with single circuit receivers. Price $10.00.



Reco Receiver

The Reco Receiver (single circuit) is simple to operate and dependable. Receives signals clearly—no "burs" to mar a concert. Carefully designed, superior workmanship, best materials. Satisfactory performance in the hands of users. Price $35.00.

Reco Two-Step Amplifier produces a high degree of amplification because of the correct construction of the amplifying transformers which are used in this unit. This is a quality unit, made of fine materials by skilled workmen. Price $40.00.

All Reco units finished in leather covered cabinets. Panels of formica rubbed to a dull finish.

We will ship all orders by express or parcels post same day that orders are received, assuring you of meeting the big Xmas demand promptly and profitably. Send in coupon for full information and discounts.



Reco Two-Step Amplifier

RADIO ELECTRIC COMPANY

Fremont, Ohio

QUALITY RECO APPARATUS

Radio Electric Co.
Fremont, Ohio.

MAIL—TODAY!

Please send full information on Reco Products and discounts to dealers and jobbers.

.....

.....

UNION RADIO

Apparatus and Accessories

Dependable Quality, Expert Workmanship and Guaranteed Performance make it profitable to sell high-grade Union Radio Apparatus



Front (Outside) View



Rear (Inside) View

PHONE TIP JACKS

(Patent Applied For)

are valuable wherever head phones are used. Any make of cord tips will fit them. Accommodates wire up to the thickness of telephone tips and can be used for ***experimental circuits*** or in any part of a set where quick changes are required. Especially convenient with C W circuits. These Jacks are useful in hundreds of ways. 25c a pair.

Union Radio Rheostats: (Non-Infringing) (Pat. App. For): Designed for easy yet efficient sliding contact. Resistance unit 95% exposed to air preventing overheating. Composed of moulded condensite and nickeled brass, sliding contact arm and tension spring phorphor bronze. Reversible, may be used for either panel or table mounting. Heating negligible with 1 1-10 amperes (Radiotron U. V. 200 and U. V. 201 draw 1.1 amperes) Type VTR-1 (with knob and pointer), $1.20. Type VTR-1A with 2¼-in. Condensite Dial, $1.50.

Union Radio Vacuum Tube Receptacles: (Pat. App. For): Made of moulded condensite and highly polished. Phosphor Bronze contact springs designed for positive and good electrical contact at all times. Capacity effect reduced to a minimum due to absence of metal shell. Reinforced bayonet slot prevents breakage of socket where pin of tube engages socket. This socket is guaranteed absolutely and accommodates any standard receiving tube. Price 90c.

Union Radio Variable Condensers: Are precision instruments famous for performance. No expense has been spared to make them perfect yet reasonably priced. 13, 23 and 43 plate types with and without dial ranging in price from $2.50 to $4.75. Radion tops and bottoms.

Union Radio Condensite Dials: Standard equipment on all our apparatus that requires it. This dial is reinforced in the back. The lettering is a brilliant white that won't discolor or chip off. The scale is engraved from 0 to 180 degrees reading from left to right. The knob is easily removable. These dials run absolutely true and will not warp or wabble when attached to a level and straight shaft. Price Dial and Knob $\frac{3}{16}$-in. shaft, $1.00. Price Dial and Knob ¼-in. Shaft, $1.00.

Send for our liberal dealer proposition and sample of our "Quality Products." Our high quality Radio Apparatus and Accessories include:

1. Complete Receiving Set
2. 2-step Amplifiers
3. Telephone Tip Jacks (Pat. App. For)
4. Filament Rheostats (Pat. App. For)
5. Vacuum Tube Receptacles (Pat. App. For)
6. Variable Condensers (Pat. App. For)
7. Condensite Dials

Union Radio Corporation

200 Mt. Pleasant Ave., Newark, N. J. **116 West 32nd St., New York**



Satisfy Yourself

The MUSIC MASTER RADIO AMPLIFIER

ASK any reliable Radio Dealer to demonstrate the Music Master on your set at home. The severest test leaves no doubt of perfection.

Fits any set, no extra batteries or current needed, makes headsets useless. Everybody can listen to any program. Speech or music—both are heard through the Music Master, each tone and emphasis is exact.

Send us the dealer's name so that we can be sure that he is supplied with a Music Master to show you.

Fourteen Inch Aperture (Home Model) **$30.00**
Twenty-one Inch (Concert, Dancing, Etc.) **35.00**

TRUE TONE AT LAST!

Music Master Horn Conquers "Screech" and "Snarl" and "Howl" and makes listening a joy!

Jobbers—Dealers

Sample Horn shipped to responsible members of the Radio or Phonograph trade with *full privilege of return.* Prices and full details on request.

"Geraco" Line

Includes everything of tested merit in Radio apparatus and supplies.

Write for prices and literature.

The Geraco Phonograph Attachment makes your Victor or Columbia an excellent loud speaker for Radio.

Interchangeable with sound box.....$10.00

The General Radio Corporation

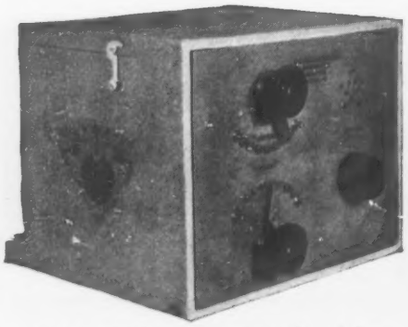
Makers and Distributors of High-Grade Radio Apparatus

624-628 Market Street, PHILADELPHIA

Chicago Pittsburgh

GERACO

PROVEN RADIO PRODUCTS



Aerial-A Boudoir Type Receiving Set. A fast seller for Holiday Trade. **Price, $35.00.**



Aerial-A Vacuum Tube Receiving Set. **Price, $25.00**

Two Leaders for Bigger Christmas Sales

Wire Your Orders for Immediate Shipment

When we first put Aerial-A Receiving sets on the market we knew that they would be winners. That we were right has been proven by the way orders have been coming in.

Aerial-A Sets are particularly leaders for Xmas Sales. The Boudoir Type as shown above is beautifully finished in color and design. It is not all outside finish either. The part inside the box is built to do the job. In fact it surpasses in selectivity and audibility sets of twice its size and price.

Other WESCO Products

Variometers
Vario-couplers
B Batteries
Variable Condensers
23 Plate
43 Plate
Audio Transformers

Let us prove our claims on Aerial-A. Order a set today. We know the results will show in repeat orders. Write or wire today.

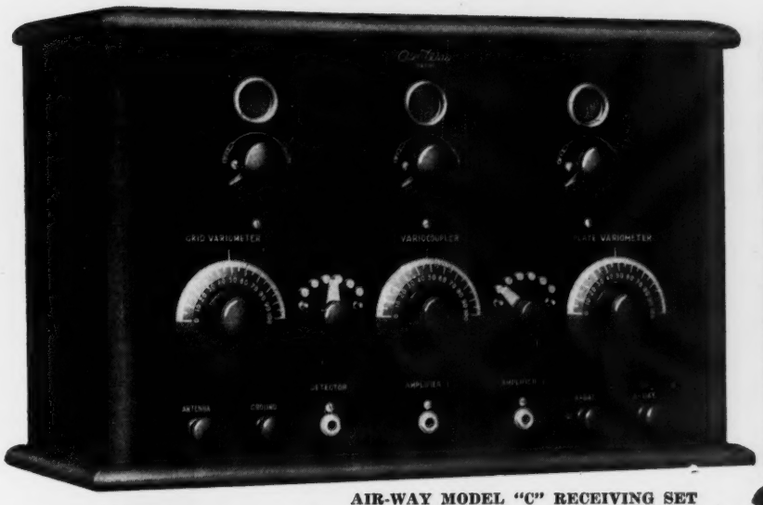
W.E. Supply & Service Corp.
18 Murray Street, New York

AERIAL-A

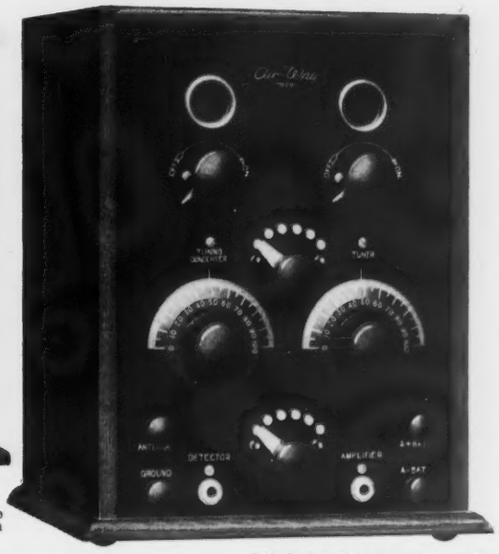
TRADE MARK

WESSCO QUALITY

Each Instrument Guaranteed



AIR-WAY MODEL "C" RECEIVING SET
Here is a sound, practical set with detector and two-stage amplification. It is remarkable for its long-range reception and its fineness of tuning.



AIR-WAY MODEL "B" RECEIVING SET
This set contains so many outstanding features that radio enthusiasts have wondered at the range and accuracy of reproduction. Detector and one-stage amplifier with typical "AIR-WAY" fineness of workmanship.



AIR-WAY MOULDED VARIOMETER
A combination of the finest known insulating material with precise asembly and accurate winding—careful AIR-WAY manufacture doubles effectiveness and reduces interference.

Air-Way
GREEN SEAL RADIO EQUIPMENT

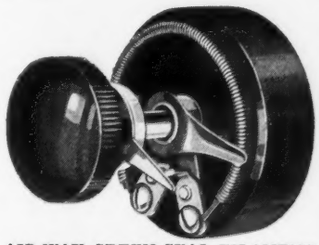
The aim of the Air-Way engineers and the policy of the Air-Way Corporation are united in the production of Radio equipment which bears the unmistakable imprint of intelligent design, expert craftsmanship, and genuine quality throughout. In the Air-Way factory there is no compromise between quality and cost. Scientifically organized production by men skilled in volume manufacture of fine electric instruments and equipment is entirely responsible for the attractive prices at which Air-Way Radio parts and complete receiving sets are offered to the public. The Air-Way Green Seal Guarantee Tag attached to each Radio instrument is a symbol of quality that is known and preferred by experienced Radio buyers.

Air-Way Electric Appliance Corporation
Dept. 105, Toledo, Ohio

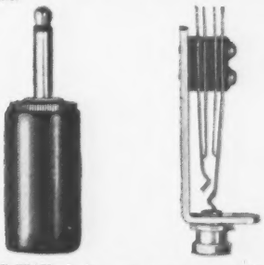
Air-Way instruments appeal most to those dealers who are wisely preparing to merit a successful and growing radio business by selling products of reputation and genuine quality at fair prices. Write for Air-Way Radio Bulletin.



No profesional operator would ask for a more precise and enduring instrument than the AIR-WAY Green Seal Variocoupler. It is built right and stays right.



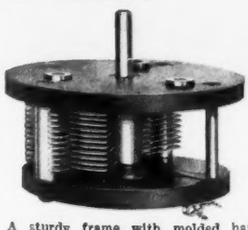
AIR-WAY GREEN SEAL FILAMENT RHEOSTAT
A compact Rheostat wound with noncorrosive resistance wire over a substantial insulating ring. Trim, workmanlike, effective and durable.



AIR-WAY Jacks and Plugs are built especially for the finer radio apparatus, to do away with the loose connections for which plugs and jacks are frequently responsible.



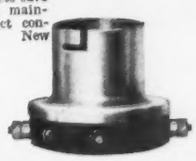
AIR-WAY genuine molded rubber composition with neat, white accurate graduations and numbers.



A sturdy frame with molded hard rubber endplates; uniformly mounted to assure maintained accuracy.



AIR-WAY new, light - weight positive contact tube sockets save bulbs and maintain perfect connections. New design.





AIR-WAY Amplifying Transformers do more to eliminate the whines and shrieks than any other similar piece of radio equipment. They prove their own merit by comparison.

For Christmas - Sell Radio Sets and Parts

Why? Because—

1. Your margin of profit is high and your turnover is quick.
2. You need not carry a large stock, but can use our stock to draw upon as you require it.
3. Each Set you sell is a living advertisement for you—it will sell other installations to neighbors and friends. It brings repeat orders for renewal parts and additions.
4. Radio is easy to sell. A man will buy his wife a Radio Set much more readily than a washing machine at the same price. His boy does not want stockings or shoes for Christmas—he wants Radio.
5. You can suit every purse—an expensive Set for those who wish it, a moderate priced Set or Parts for the others.
6. Radio gives you an entry into your customers' homes and brings you new customers. When you install a Set you pave the way for the sale of other apparatus.
7. A big demand for Radio exists—profit by it—get your share.

DISTRIBUTORS FOR
Radio Corporation of America
(RCA)
Westinghouse General Electric
Acme Atwater Kent Baldwin
Brach Brandes Burgess
Chelsea Clapp-Eastham
Cunningham Cutler-Hammer
Dubilier Fada Fahnestock
Formica Frost General Radio
Hipco Homecharger Hopewell
Kellogg Kennedy Klosner
Murdock Omnigraph Pacent
Radio Service Radiall (Amperite)
Remler Rhamstine Tuska
Western Electric
and other Leading Manufacturers
OIDAR

How? Because—

1. Radio brings to the home concerts, opera, lectures, speeches, election returns, sporting news, crop and weather reports, etc.
2. Radio keeps the family together in the home.
3. A home is incomplete without a Radio Set.
4. Radio is an ideal gift for the boy because it is education and fun combined. "Learn while you play."
5. Radio is a godsend to the aged and the sick.
6. There is a Set for each purse, for the grown-ups and for the young.
7. An inexpensive Set, or Parts for making a complete Set, can be purchased and additions made as the customer's interest and pocketbook may suggest.
8. Radio never stales. It is a fascinating present that is used daily and appreciated more and more as time goes on.
9. It appeals to the music lover, the sports fan, children, adults, everybody.

Tie Up With Ludwig Hommel & Co., Because—

1. Their discounts are liberal.
2. They are Distributors for Radio Corporation and all other leading manufacturers.
3. They carry an enormous stock of sending and receiving material, insuring you quick shipment and a positive source of supply.
4. They maintain a Dealers' Service Department to help you with your problems. This service is free and cheerfully given.
5. You can rely absolutely on Ludwig Hommel & Co., apparatus. It is guaranteed by the manufacturers, and by them.
6. They wholesale to dealers exclusively and do not compete with their dealers by retailing.
7. They do more advertising than any other distributor of radio apparatus *and refer to their dealers, consumers' inquiries resulting from that advertising.* They advertise for you.
8. They have been wholesale distributors for 16 years and play square with everybody at all times.

Wire Collect Trial Order
Write for our new illustrated Catalog No. 200-M

LUDWIG HOMMEL & CO

530-534 FERNANDO ST. — OIDAR — PITTSBURGH, PENN'A

This is the MARK OF CERTAINTY *of the* MALONE-LEMMON LABORATORIES, *placed on such radio apparatus as has been tested and approved by them as your insurance of quality in manufacture and scientific accuracy in design.*

DEVELOPMENT

THE growing number of broadcasting stations and the assignment of closely separated wave lengths, has made finer tuning vital to Radio receiving.

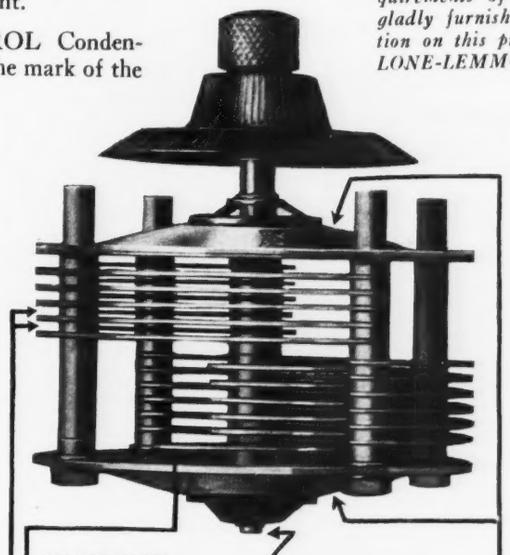
Exercising its function of improving Radio apparatus, the MALONE-LEMMON LABORATORIES undertook to develop a condenser of improved electrical and mechanical construction in order to render accurate tuning easy and certain.

The result is the new VERNITROL Condenser, capable of finer electrical variation and having greater mechanical rigidity than has heretofore been available in any except laboratory equipment.

The New VERNITROL Condenser can be identfied by the mark of the MALONE-LEMMON LABORATORIES which is placed only on such apparatus as has been tested and approved by them, assuring quality in manufacture and scientific accuracy in design.

This VERNITROL Condenser is but one example of the development activities of the MALONE-LEMMON LABORATORIES which service is available to other manufacturers in connection with any of their Radio problems.

Jobbers and dealers will find that the VERNITROL Condenser fully meets the very latest requirements of precise tuning. We will gladly furnish further detailed information on this product—also the new MALONE-LEMMON DUOTROL Rheostat.



PAT. APPLIED FOR

Independent Vernier Plate
Micrometer Spacing
Internally Balanced

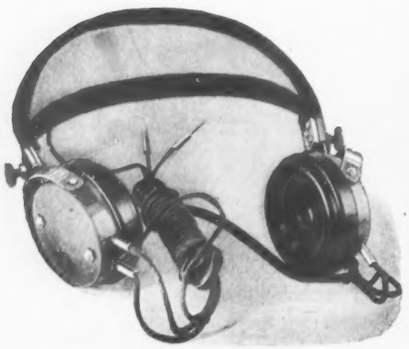
Rigid Metal End Shields
Heavy Bearings
Low Losses

MALONE-LEMMON LABORATORIES

CANADIAN PACIFIC BLDG. MADISON AV. AT 44TH ST. N.Y.

"THE BEST THAT MONEY CAN BUY"

THE RADIO TRADE DE VEAU MARK OF QUALITY



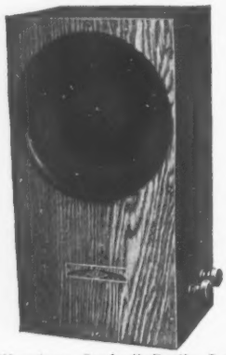
DeVeau Gold Seal Radio Head Set
Cat. No. 843



DeVeau "Silvertone Standard" Radio Loud-Speaker
Cat. No. 833



DeVeau Gold Seal Radio Head Set
Cat. No. 844



DeVeau "Silvertone Junior" Radio Loud-Speaker
Cat. No. 834



DeVeau "Silver Station Type" Radio Loud-Speaker
Cat. No. 836



DeVeau "Silvertone Midget" Radio Loud-Speaker
Cat. No. 835



DeVeau Radio Adjustable Arm Micro-Transmitter
Cat. No. 847



DeVeau Radio Hand Micro-Transmitter
Cat. No. 845



DeVeau Radio Stationary Type Micro-Transmitter
Cat. No. 848



DeVeau Radio Desk Micro-Transmitter
Cat. No. 846



DeVeau Radio Flat Plug
Cat. No. 829
DeVeau Radio Round Plug
Cat. No. 828

We Manufacture the Following Radio Apparatus

DeVeau "Gold Seal" Radio Head Sets
DeVeau "Silvertone" Loud-Speakers
DeVeau Radio Transmitters
DeVeau Radio Cams
DeVeau Radio Jacks
DeVeau Radio Binding Posts
DeVeau Radio Phonograph Attachments
DeVeau Radio Plugs

AND OTHER RADIO SPECIALTIES

Send for Descriptive Data and Discounts

MANUFACTURED BY

STANLEY & PATTERSON, Inc.

New York, U. S. A.

District Sales Offices:

PHILADELPHIA
J. A. Vaughan
Real Estate Trust Bldg.

SAN ANTONIO
Kemp Haythorne
333 McKinley Ave.

DETROIT
Deveau-Bartling Co.
602 Equity Bldg.

PITTSBURGH
Parke and Jacques
305 Seventh Avenue

SEATTLE
P. L. Hoadley
Seaboard Bldg.

LOUISVILLE
Electrical Sales Co.
Kenyon Bldg.

SAN FRANCISCO
Clapp & LaMoree
589 Howard St.

BUFFALO
C. K. Wyatt
241 Lexington Ave.

CHICAGO
Doherty-Hafner Co.
730 W. Monroe St.

LOS ANGELES
Clapp & LaMoree
310 E. 4th St.

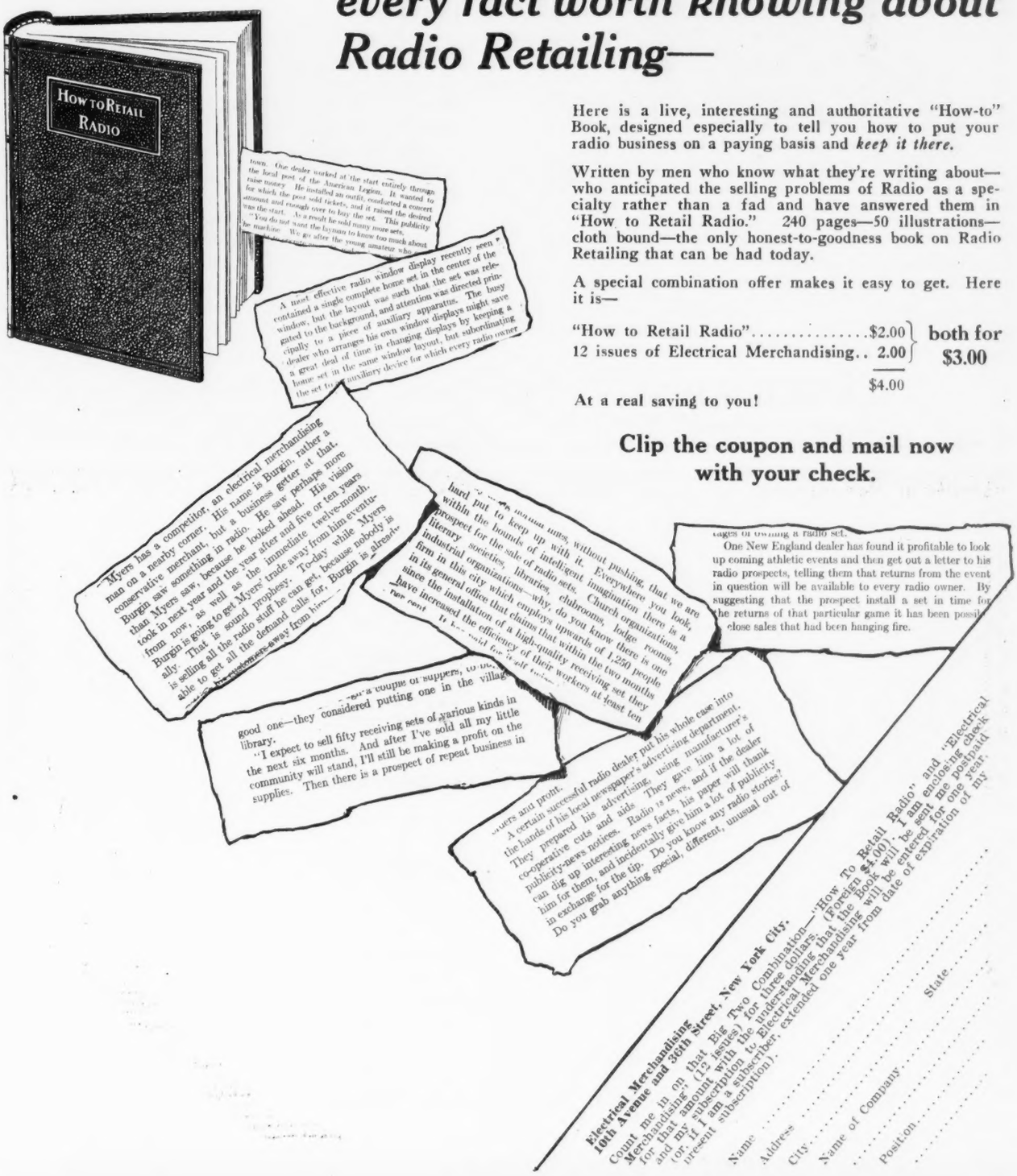
BIRMINGHAM
W. H. Beaven
Jefferson Co. Bank Bldg.

HABANA
Arnesto N. Rodrigues
Abreu Bldg.

BOSTON
C. R. Corcoran
100 Boylston St.

Profit by other dealers' experiences in selling Radio

"How to Retail Radio" tells you every fact worth knowing about Radio Retailing—



Here is a live, interesting and authoritative "How-to" Book, designed especially to tell you how to put your radio business on a paying basis and *keep it there.*

Written by men who know what they're writing about—who anticipated the selling problems of Radio as a specialty rather than a fad and have answered them in "How to Retail Radio." 240 pages—50 illustrations—cloth bound—the only honest-to-goodness book on Radio Retailing that can be had today.

A special combination offer makes it easy to get. Here it is—

"How to Retail Radio".....$2.00
12 issues of Electrical Merchandising.. 2.00
$4.00

both for $3.00

At a real saving to you!

Clip the coupon and mail now with your check.

Electrical Merchandising
10th Avenue and 36th Street, New York City.

Count me in on that Big Two Combination—"How To Retail Radio" and "Electrical Merchandising" (12 issues) for three dollars. (Foreign $4.00). I am enclosing check for that amount with the understanding that the Book will be sent me postpaid and my subscription to Electrical Merchandising will be entered for one year. If I am a subscriber, extended one year from date of expiration of my present subscription).

Name .....
Address .....
City ..... State .....
Name of Company .....
Position .....

Radio's Most Attractive Merchandising Proposition



THE HOMCHARGER

is unquestionably the most popular and the most successful battery charger on the market. A necessity to every Radio Fan and Auto Owner.

Over 50,000 Now in Use.

Homcharger dealers are backed by the most comprehensive advertising campaign in the entire field—over thirty-five publications regularly carry the Homcharger message to ten million prospects.

Attention compelling sales helps, window trims, streamers, counter cards, circulars, etc, will bring *these* prospects into *your store* to buy.

The Homcharger's exclusive selling points will make nearly every inquiry a sale—*self-polarizing—over five ampere charging rate—approved by Underwriters.* Finished in mahogany and gold, and furnished complete with Ammeter, Charging Cable and Battery Clips, at the popular price of $18.50.

Our LIBERAL Discounts and close Dealer Cooperation insure more sales and greater PROFITS than any other Charger on the market. Write for proposition.

The Automatic Electrical Devices Co.

134 West Third Street, Cincinnati, Ohio



Radio Week

December 23rd to 30th Inclusive

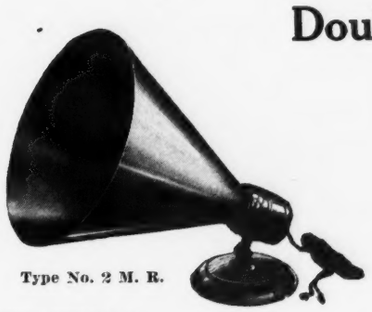
"This is a Radio Christmas"

POPULAR Qualitone HORNS

with

Double Tone Chambers

FANS WILL BUY and Recommend!



Type No. 2 M. R.

WITH SPECIAL LOUD SPEAKER PHONE AND CORD **$9.00**



Type No. 1 R.

HOLDS ONE PHONE RECEIVER OF ANY MAKE **$4.50**

ALSO TYPE No. 1 WHICH HOLDS TWO PHONE RECEIVERS, $4.50.

We Guarantee a Beautiful Grained Mahogany Gloss Finish Throughout. Quality of Tone Superior to any Horn Selling at Twice the Price.



Tone Chamber and Construction Patents Pending

Illustrating the

Double Tone Chamber

which absorbs mechanical noises and produces the rich, sweet, delightfully mellow quality of tones which have made the Qualitone popular.

TEST IT!

To The Trade—

The Qualitone is the best buy and the best seller in the radio horn field today. Make us prove the above statements. Order samples at once. Try them—you will be convinced.

All orders shipped same day received.

THE DUAL TOOL COMPANY

12331 Superior Ave., Cleveland, O.

DEALERS—don't shop—You will find just what you want at the

PERMANENT RADIO FAIR

Hotel Imperial, 32nd St. and Broadway, New York City

The Radio Buying Center of America



If you are looking for reliable radio merchandise, it's here, centralized and assembled for your benefit. Only the products of representative manufacturers are on display.

One or two hours' visit to the fair will enable you to survey the entire radio field. Engineers in charge will gladly demonstrate any of the products of the exhibitors. A cordial invitation is extended to all interested in the buying of radio apparatus. Your business card admits you.

MANUFACTURERS

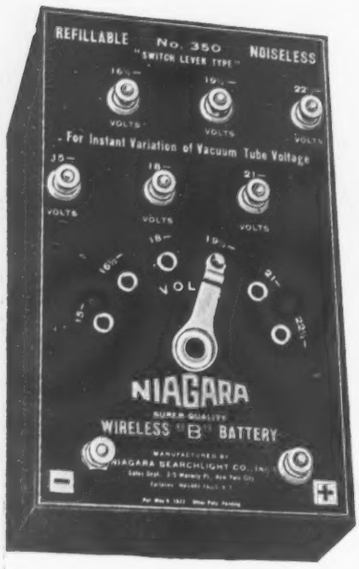
We have a few more compartments available for display purposes. Rental from $1.00 to $3.00 per day. Literature and Plans on request.

OPEN TILL MAY 30th, 1923

PERMANENT RADIO FAIR, INC.

Hotel Imperial, Broadway and 32nd St., New York, N. Y.

A Sensational New "B" Battery!



The New Niagara Switch Lever Type "B" Battery makes it unnecessary to reconnect the wiring to get a change in voltage on the plate of detector tubes. A movement of the switch lever on the Niagara gives instant variation from 15 to 22½ volts.

The New NIAGARA "Switch Lever Type" Gives Instant Voltage Selection Without Change in Wiring

The New Niagara "B" Battery has features which will win enthusiastic response from every owner of a V.T. set:—

Voltage range 15 to 22½, instantly variable through the use of the switch lever on battery cover.

Only two main terminals to connect.

No changing of wiring to get proper plate voltage for critical detector tubes. Simply move switch lever until signals are loudest.

Extra tap provided for 18-volt circuit. The Niagara switch lever type battery is refillable without the use of solder. 15 noiseless cells in each battery—each cell perfectly insulated.

Dimensions—7 in. x 4¼ in. x 3 in. popularly priced at $3.50.

Write Today!
It means more battery sales and bigger profits

Niagara Sales Corporation

3-5 Waverly Place, New York City

MAKE THIS A RADIO CHRISTMAS

If you don't like the concert you are listening to—you may find another more suited to your taste

If you are equipped with the

DX Type No. 58 R. F. Receiver



Federal

DX TYPE NO. 58 R. F. RECEIVER

the characteristics of which are

GREAT SELECTIVITY AND EXCEPTIONAL LONG RANGE

We will gladly supply you with literature descriptive of Radio Frequency Apparatus

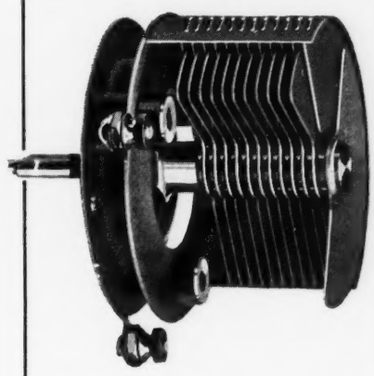
Write For Bulletin No. 119-W

Federal Telephone and Telegraph Company

MANUFACTURERS OF STANDARD RADIO EQUIPMENT

1738 Elmwood Ave., BUFFALO, N. Y.

Buy the Best
Thordarson Condensers and Amplifiers



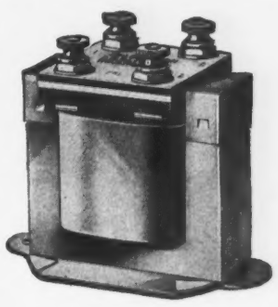
13 plate .00025 M. F.	$2.00
With vernier, knob and dial	3.50
23 plate .0005 M. F.	2.50
With vernier, knob and dial	4.00
43 plate .001 M. F.	3.00
With vernier, knob and dial	4.50
Vernier furnished separately if desired, with knob	.60

Our Latest Product

The best, most flexible and most complete variable condenser on the market today at any price.

Some of its features are: Movable and stationary plates completely shielded. Stationary plates spaced accurately by special punched shell. Movable plates secured by an ingeniously assembled comb separator brushing against the bearing. Single bearing fastened directly to the shielding base plate without any dielectric. Assembled by machine. Lowest possible zero capacity and dielectric loss. A vernier can be added by anyone at any time at a very small cost.

The new Thordarson 6 to 1 ratio audio frequency amplifying transformer. Designed for those desiring a higher transformer ratio than our standard. Unusually high and constant amplification without distortion over a broad band of audio frequencies. Core is twice the cross-section of that of the ordinary amplifying transformer and is made of special 36 gauge silicon steel. The coils have low distributed capacity. The high "Thordarson" standard has been maintained throughout.



6 to 1 ratio transformer..... $5.00
3½ to 1 ratio transformer..... 4.50

THORDARSON ELECTRIC MFG. CO.
500 W. Huron St., Chicago

Jobbers and Dealers—
We can make Xpress Shipments for Xmas
on the "Q-R" (TRADE MARK) Vernier Adjuster
which



Price $1.50

Attaches to any Set
Works with any Dial

Is Rapidly Becoming One of the Fastest Selling Radio Necessities

The Radio Public is learning the value of vernier adjustment, and its elimination of capacity effect from the hands. Everyone enjoys picking up stations they never heard before.

For "the chap who makes his own" the "Q-R" is particularly valuable

because it may be easily and quickly attached to any set, no matter what type of dial used.

Put a trial order on display.
It's an "over the counter" seller.

Robinson Specialty Company
17 Walnut St., Keyport, N. J.
"Q-R" Radio Products



Only the Best will do today

The Clariphone costs a little more,

But—

Look at the results

Heard by Campbell Radio

→

Affidavit by a user

East Lynn, Mass., September 8, 1922

Campbell Electric Co.,
Lynn, Massachusetts

Gentlemen:

I am pleased to advise you that the following broadcasting stations have been heard and very distinct in your "Clariphone" Radio Set at my summer home in Raymond, N.H.

Shephard Stores		Boston, Mass.
KDKA	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.
WBZ	" " " "	Springfield, Mass.
WJZ	" " " "	Newark, N.J.
KYW	" " " "	Chicago, Ill.
WGI	American Radio Corp	Medford Hillside, Mass.
KSD	Post Despatch	St. Louis, Mo.
WHB	Sweeney School Co.	Kansas City, Mo.
WOC	Palmer School of Chiropractic	Davenport, Iowa
WWJ	Detroit News	Detroit, Mich.
WCX	Detroit Free Press	" "
WBAY	American Tel. & Tel. Co.	New York, N.Y.
WDAT	Delta Electric Co.	Worcester, Mass.
WGR	Federal Tel. & Tel. Co.	Buffalo, N.Y.
WGY	General Electric Co.	Schenectady, N.Y.
WRL	Union College	"
WOH	Mayfield Electric Co.	Indianapolis, Ind.
WOO	John Wanamaker	Philadelphia, Pa.
WOR	L. Bamberger	Newark, N.J.
WSB	Atlanta Journal	Atlanta, Ga.
WHAS	The Courier Journal	Louisville, Ky.
WHAZ	Rensselaer Polytechnic Inst.	Troy, N.Y.
NOF	Naval Air Station	Anacosta, D.C.

Yours truly

George A. Ober

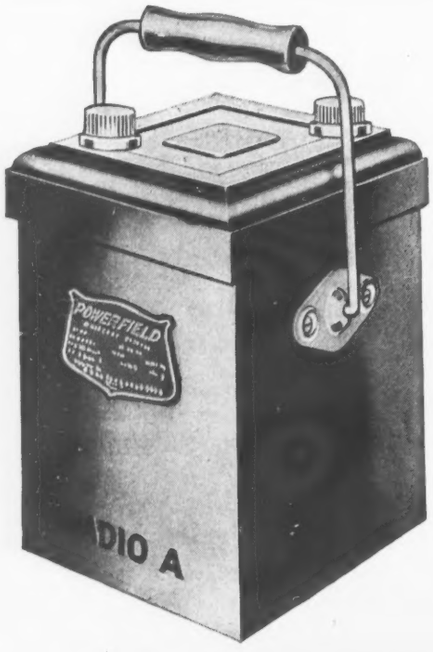
Lynn Mass. Sept 9 22

Personally appeared George A. Ober and made oath to statement by him signed as true. Before me

Justice of the Peace

NOTE—Above is only an ordinary amateur installation.
Here's a corking good number for your Holiday Business

CAMPBELL ELECTRIC CO., Lynn, Mass.



Xmas Radio Crowds Assure Big Battery Sales!

CHRISTMAS crowds, Christmas spirit, the intense consumer interest, in radio plus the fact that over one million radio sets need storage batteries, equip the radio dealer to do the biggest battery business ever known this Xmas season.

Powerfield Batteries are the product of a reliable manufacturer who protects the dealer with an iron-clad guarantee. Plates are three times as thick as used in most batteries which assures a steady flow of current and long life. Obtainable in hardwood cases, mahogany finish.

Low list prices that enable you to sell to all classes of trade plus liberal discounts make Powerfields a money-making proposition for every radio dealer.
Write for full information — TODAY.

LIST PRICES

Type	Ampere-Hours	List Price
6-volt—5-plate	60	15.00
7-volt—7-plate	85	18.00
6-volt—9-plate	115	21.00

Advance Battery Manufacturing Co.
227 East Lee St., Louisville, Ky.

POWERFIELD

Trade Mark

BRISTOL'S AUDIOPHONE

Patents Pending Design Patent Pending

Phonograph Record Reproducer Outfit

amplifies—refines and controls the tone quality with any make of phonograph and all kinds of records.

Dealers—here is a good money maker, with almost unlimited sales possibilities! Made by the Bristol Company, which is your assurance of *first quality.*

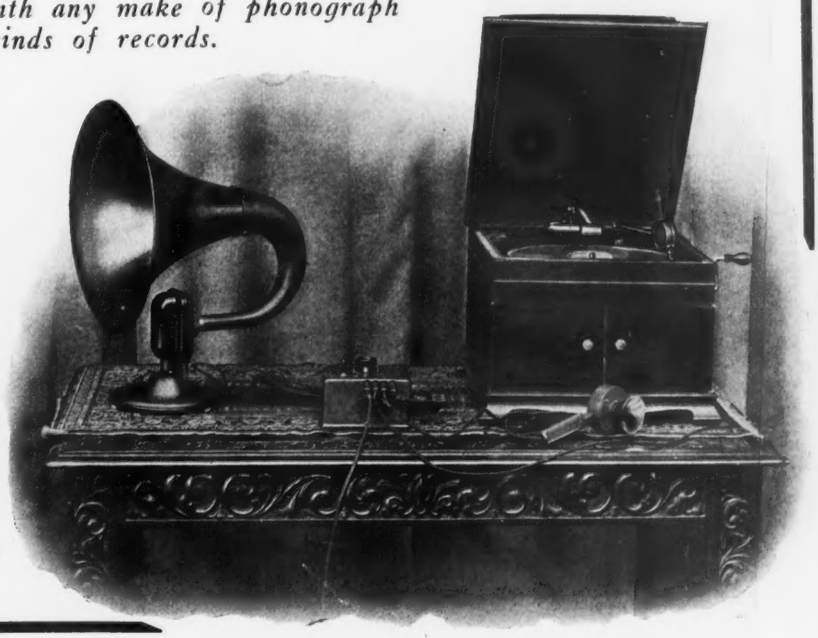
This outfit can be instantly attached to any phonograph, without changing in any way the original phonograph instrument.

The scope of usefulness of the phonograph is greatly increased through its connection with the AUDIOPHONE. In the home, club house, school, hotel, dance hall, theatre, etc., this oufit finds instant favor. *Write for demonstration*—NOW!

Bristol Audiophone Phonograph Record Reproducer Outfit Complete. Price $82.00.

Bristol Audiophone and Hand Speech Transmitter Outfit Complete. Price $82.00.

Complete Outfits, both Phonograph and speech. Price $102.00.



THE BRISTOL COMPANY

Waterbury, Conn.

Merry Xmas

greetings to the Trade

This is an excellent opportunity to thank our friends for their co-operation during 1922 and to assure them we are heartily with them to make 1923 a record breaking radio year.

Hopewell Insulation & Mfg. Co.

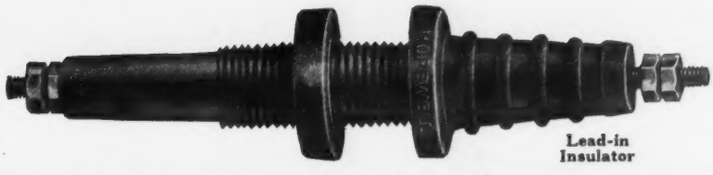
Box 27-A

Hopewell, Va.

Hopewell
Audion Sockets
Dials
Insulators
and Other
Radio Parts



No. 197 Antenna Insulator
Patented Air Gap



Lead-in Insulator

KING QUALITY
ALL THE NAME IMPLIES
RADIO APPARATUS

The KING QUALITY Line Radiates Quality

KING QUALITY BINDING POSTS *of genuine Bakelite*

An article of unsurpassed beauty and service—the peak of perfection in design. Diamond finished knurl predominates as an exclusive feature. Highly polished finish.

EVERY article in the King Quality line is the Best that modern machinery and human skill can produce.

The only character of radio goods you want to carry today are those made of finest materials, accurate in design and workmanship, superior in finish and excellent in appearance. You'll find all these in

the KING QUALITY line

We use genuine Bakelite Parts exclusively made in our own Bakelite plant.

JOBBERS and DEALERS: Valuable territory now open. Write today for King Quality proposition

KING QUALITY SWITCH LEVER

With perfect mechanical and electrical features. Mirror finish Bakelite knob with polished knurl that glows like a diamond. Three sizes: 1 in., 1¼ in., 1½ in.

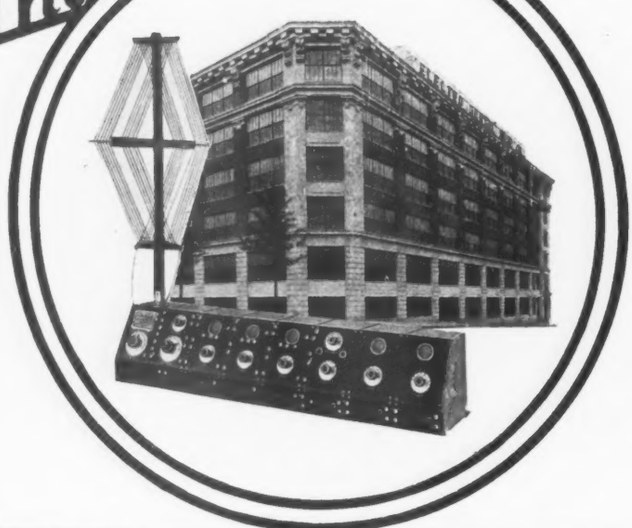
RADIO APPARATUS DIVISION
KING SEWING MACHINE CO., BUFFALO, N. Y.

Lower in Price — *Highest in Quality*

KING QUALITY RHEOSTATS

The resistance value 6.5 ohms. Brass Panel Bushing Special feature, which insures smooth operation and solid construction. Bakelite Base and Knob. Resistance wire wound on heat resisting hard fibre strips.

THE FIRM BEHIND
1897
1922
The Set that Grows



TRADE MARK

FOR twenty-five years the firm behind the E-D radio sets has been manufacturing delicate, high-grade electrical appliances. Its reputation amongst dealers for its universal "square-dealing" policy is excelled only by the reputation of its products. Today, the Company stands solidly behind every switch and panel made on any one of the three floors in our own building shown here.

The E-D set comes in unit-panels matching each other as illustrated. The radio novice can begin his set with only two E-D panels and then purchase more as his pocketbook permits. This exclusive feature assures you of endless sales and re-sales. You can always "Sell 'em Some More" E-D equipment!

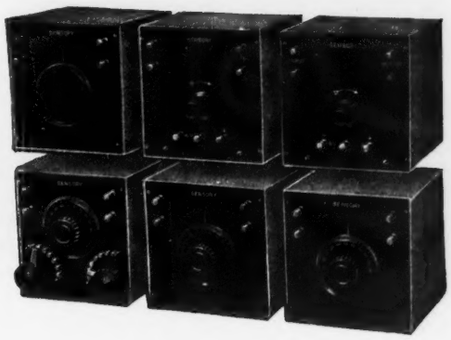
You'll never regret the day that you wrote E-D. Tell us NOW to send you full information—and the next time you're in Philadelphia, drop in and inspect our plant. We want to meet you.

The E-D Manufacturing Co.
33rd and Arch Streets
PHILADELPHIA, PA.

Established 1888

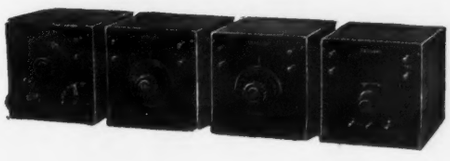
RELIABLE EFFICIENT
SENSORY
WIRELESS APPARATUS
H.E.C.O. PHILA.
TRADE—MARK

Sensory Cabinet Units



The most flexible method of adding to, or obtaining a variety of hook-ups, and giving an appearance equal to any single cabinet set. Each cabinet contains a "Sensory" element.

The full line of "Sensory" accessories is shown in our new Bulletin No. 12 Write for it today



Heinemann Electric Company
Manufacturers
Radio Division Philadelphia, Pa.

The Outfit Everybody Wants!

TRADE MARK
METRO



The Little Giant Receiving Outfit

Greater Simplicity—More Efficiency—Popular Price

The Little Giant Receiving Outfit is surprising dealers everywhere with its extraordinary sales. People, who never showed any interest in radio, are buying this greatly improved high-grade receiving outfit. It overcomes all the objections of difficult operation, unsightliness, inconvenience and great expense common to most types. Dealers are increasing business with this rapid seller. Things are brighter after they give the Little Giant a chance to prove its appeal to everybody.

The entire set is contained in a highly polished American Walnut cabinet that you can hold easily in one hand. The only adjustment necessary (once the detector is fixed) is the pulling out of a small rod on the side until the sound is clear and loud. Designed on entirely new principles. Combined with supersensitive Metro Headphones, the Little Giant outfit is surprisingly simple and efficient. Everything needed to install the Little Giant is packed in the neat, black leatherette box.

Little Giant Outfit Complete

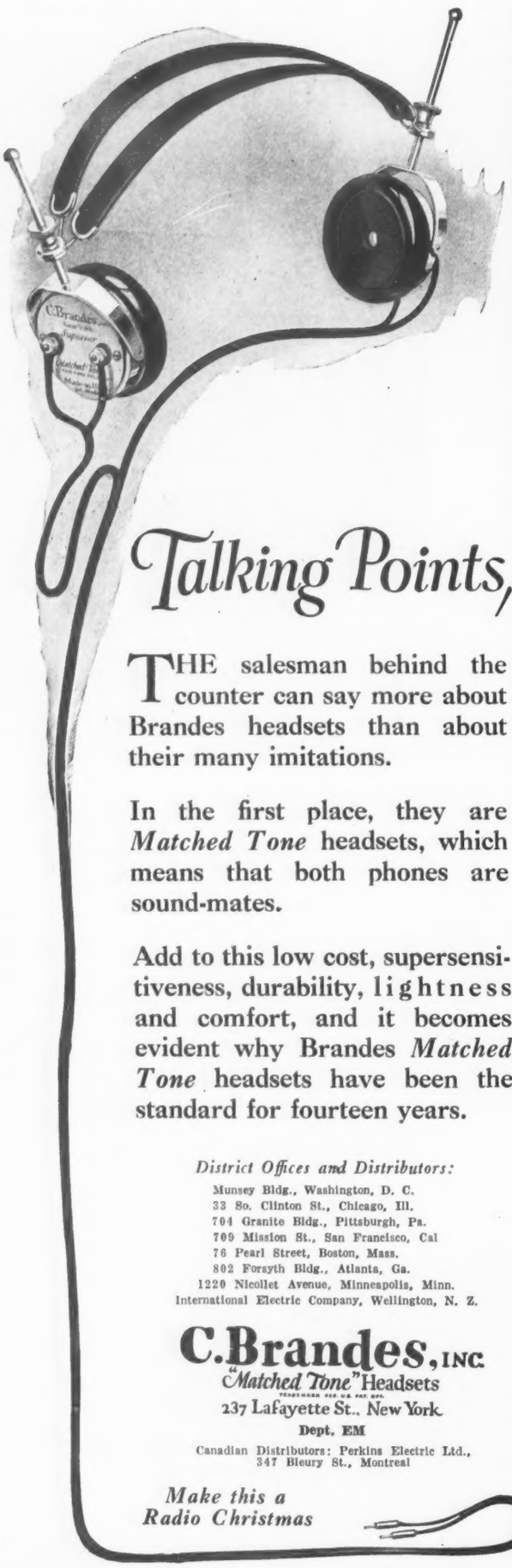
With Metro Headphones, Insulators, Ground Wire, Ground Clamp and complete aerial.

In Black Leatherette Box

$15
List

Write for Circular and interesting proposition. Get your share of the profits in Little Giant Receiving Outfits.

METROPOLITAN RADIO CORPORATION
68-72 Goble St., Newark, N. J.



Talking Points,

THE salesman behind the counter can say more about Brandes headsets than about their many imitations.

In the first place, they are *Matched Tone* headsets, which means that both phones are sound-mates.

Add to this low cost, supersensitiveness, durability, lightness and comfort, and it becomes evident why Brandes *Matched Tone* headsets have been the standard for fourteen years.

District Offices and Distributors:

Munsey Bldg., Washington, D. C.
33 So. Clinton St., Chicago, Ill.
704 Granite Bldg., Pittsburgh, Pa.
709 Mission St., San Francisco, Cal
76 Pearl Street, Boston, Mass.
802 Forsyth Bldg., Atlanta, Ga.
1220 Nicollet Avenue, Minneapolis, Minn.
International Electric Company, Wellington, N. Z.

C. Brandes, INC.
"Matched Tone" Headsets
TRADE-MARK REG. U.S. PAT. OFF.
237 Lafayette St., New York
Dept. EM

Canadian Distributors: Perkins Electric Ltd., 347 Bleury St., Montreal

Make this a Radio Christmas

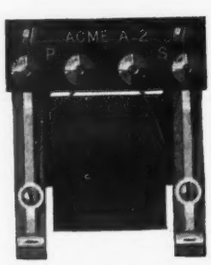


"Can those shrieks"

HOW often have you and your customers sat helpless while some amateur Farrar has tried to hit "High C". But when your customer's radio set starts in to show off its shrieking talent he need not go through another such ordeal. You can sell him an Acme *Audio* Frequency Amplifying Transformer. When he hooks this up to his set he can sit back and take it easy. He'll be surprised how clearly and distinctly he can hear incoming radio concerts. The tones are perfectly natural—something very unusual in the ordinary receiving set.

Your customer will also want the Acme *Radio* Frequency Amplifying Transformer because this will greatly increase the range of his set whether it be of the vacuum tube or crystal detector type. You can sell both types of transformers for five dollars apiece. This reasonable price enables you to make frequent turnovers and much larger profits. No radio set can be complete without them.

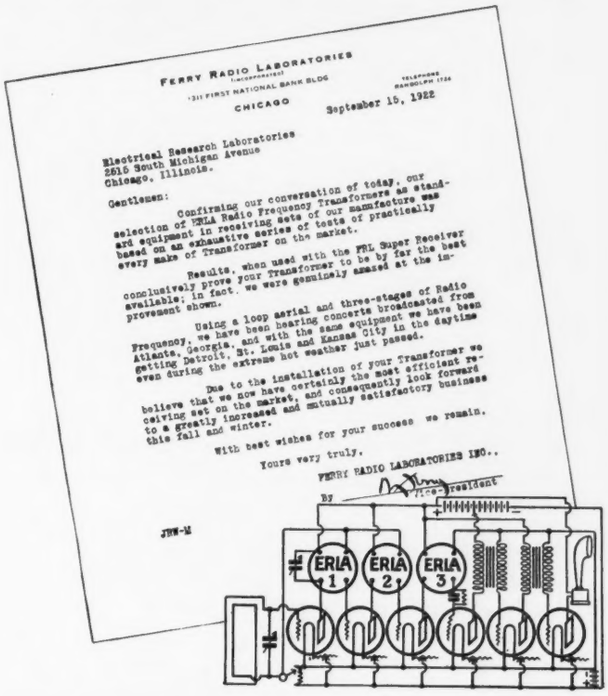
There is also a large market for other Acme Apparatus such as detector units, the Acme Clear Speaker, the Acmefone, Acme C. W and Spark Transmitting Apparatus, etc. Write The Acme Apparatus Company (pioneer transformer and radio engineers and manufacturers), Cambridge, Mass., U. S. A. New York Sales Office, 1270 Broadway, for full particulars.



Type A-2 Acme Transformer
Retail Price $5 (East of Rockies)

ACME
for amplification

ATLANTA to CHICAGO with Loop Aerial and ERLA Transformers



FERRY RADIO LABORATORIES
311 FIRST NATIONAL BANK BLDG
CHICAGO
September 15, 1922

Electrical Research Laboratories
2515 South Michigan Avenue
Chicago, Illinois.

Gentlemen:

Confirming our conversation of today, our selection of ERLA Radio Frequency Transformers as standard equipment in receiving sets of our manufacture was based on an exhaustive series of tests of practically every make of Transformer on the market.

Results, when used with the FRL Super Receiver conclusively prove your Transformer to be by far the best available; in fact, we were genuinely amazed at the improvement shown.

Using a loop aerial and three-stages of Radio Frequency, we have been hearing concerts broadcasted from Atlanta, Georgia, and with the same equipment we have been getting Detroit, St. Louis and Kansas City in the daytime even during the extreme hot weather just passed.

Due to the installation of your Transformer we believe that we now have certainly the most efficient receiving set on the market, and consequently look forward to a greatly increased and mutually satisfactory business this fall and winter.

With best wishes for your success we remain,

Yours very truly,

FERRY RADIO LABORATORIES INC.,
By ..... Vice-President

JWW-M

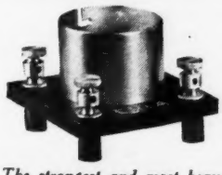
For Best Results Use ERLA



Both in results and intrinsic value, ERLA radio frequency transformers have no equal. List price, $4.00.



ERLA bezels add 100% to the appearance of any receiving set. Fit 1½ in. hole in any ⅛ in to ¼ in. panel. Price, 20 cents.



The strongest and most beautifully finished socket on the market. Nickeled shell. Radion base. Price, $1.00.

The ability of ERLA transformers to bring in Atlanta through a loud speaker, using a loop aerial and the hook-up shown above, resulted in their adoption as standard equipment by the Ferry Radio Laboratories of Chicago, in all FRL receiving sets.

Direct comparative tests proved the superiority of ERLA transformers for one, two or three stages of amplification.

Old-style regenerative receiving sets can be made genuinely efficient by substituting a single stage of ERLA radio frequency for one of the two stages of audio frequency now employed.

Make good business certain by selling ERLA transformers and other fast moving radio specialties. Ask your jobber.

Electrical Research Laboratories
Dept. G. 2515 Michigan Ave., Chicago



The PORTABLOOP RECEIVER

With a Baldwin Phone and a horn, loud enough volume is received for the ordinary home. No other amplifier is necessary.

WHY bother with outdoor aerials when the Portabloop Receiver can be demonstrated in the home without any loss of time?

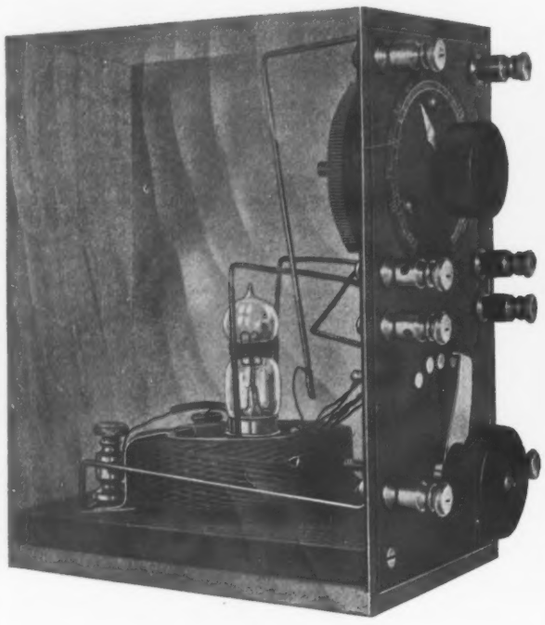
We can make rush shipments

WE SOAR ABOVE
EAGLE RADIO COMPANY
NEWARK NEW JERSEY
TRADE MARK

210 Central Ave.

"KING Jr."

Complete Vacuum Tube Set



$15.00 COMPLETE WITH TUBE

THE most astounding radio proposition yet offered—a Radio Receiving Set complete in every detail—including vacuum tube selling at $15.00. All that is lacking are phones and dry cells to operate the tube.

The famous "Relay Radion," gives the clearest signals within a radius of 50 to 75 miles. Amplification can be used permitting the operation of a loud speaker.

"King Jr." is a wonderfully compact V.T. Receiving Set that can be operated on dry cells instead of a storage battery.

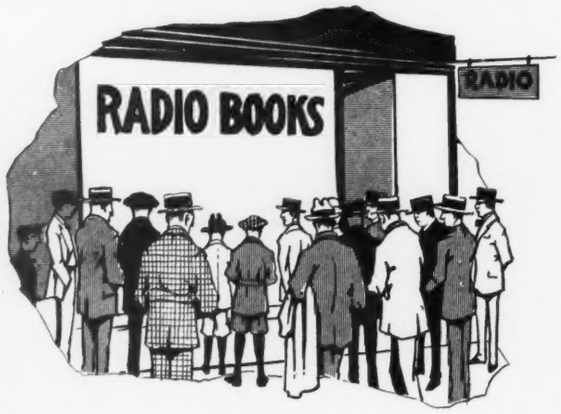
Create a furore in your territory by featuring the "King Jr." in your Xmas window.
We can fill orders by express—wire us now.

C. S. LYONS

1270 Broadway, N. Y.

RADIO BOOKS

for every person who enters your store



Build good will and future sales But make a profit now.

Every man, woman or boy who enters your store is interested in buying a radio set some time. Many come in only to look around, others to get information to help them in building their own sets.

Sell these people radio books and make contacts that build good will and future sales.

Here is a list of the excellent radio books—and there's a good profit in it for you.

No. 1, 2, 3, 4, 5 and 6 on this list are selling heavily everywhere.

1. **Radio Hook-Ups, by M. B. Sleeper**.....$ .75
   Indispensable to the radio amateur who designs or builds his own receiving apparatus.
2. **The Radio Experimenter's Handbook, by M. B. Sleeper**..... 1.00
   A book which answers the practical problems of the beginner and the advanced student of radio experimental work. 138 pages. Illustrated.
3. **Radio Design Data, by M. B. Sleeper**..... .75
   Gives tables and data for designing, receiving and transmitting apparatus.
4. **Construction of New Type Trans-Atlantic Receiving Set, by M. B. Sleeper**..... .75
   Tells how to listen to the high-power telegraph stations of foreign countries.
5. **Construction of Radiophone and Telegraph Receivers for Beginners, by M. B. Sleeper**... .75
   Tells in detail the building of radio apparatus.
6. **How to Make Commercial Type Radio Apparatus, by M. B. Sleeper**..... .75
   Describes in detail many commercial types of transmitting spark and vacuum tube sets, both telephone and telegraph, and receiving equipment of all kinds.
7. **Wireless Telegraphy and Telephony Simplex Explained, by A. P. Morgan**..... 1.50
   A book the radio experimenter cannot afford to be without.
8. **Experimental Wireless Stations, by P. E. Edelman** 3.00
   A book describing all modern improvements.
9. **A B C of Vacuum Tubes Used in Radio Reception, by E. H. Lewis**..... 1.00
   A book explaining in detail all about vacuum tubes.

FREE! Catalogue of Wireless, Automobile and Other Books Sent Free on Request.

The Norman W. Henley Publishing Co.

2 West 45th Street, New York

LIBERAL DISCOUNT to Supply Houses.
Write for full particulars and dealer's proposition.



Make it the GREATER Radio Christmas









A DEALER who carries Magnavox Radio, demonstrates concerts with it, and uses the valuable Magnavox Selling Helps, soon makes his store known as "Radio Headquarters" throughout the community.

There is no more profitable service you can render your business than to push Magnavox equipment among radio enthusiasts.

R-3 Magnavox Radio with 14-inch horn is ideal for use in homes, offices, etc. **Price $45.00**

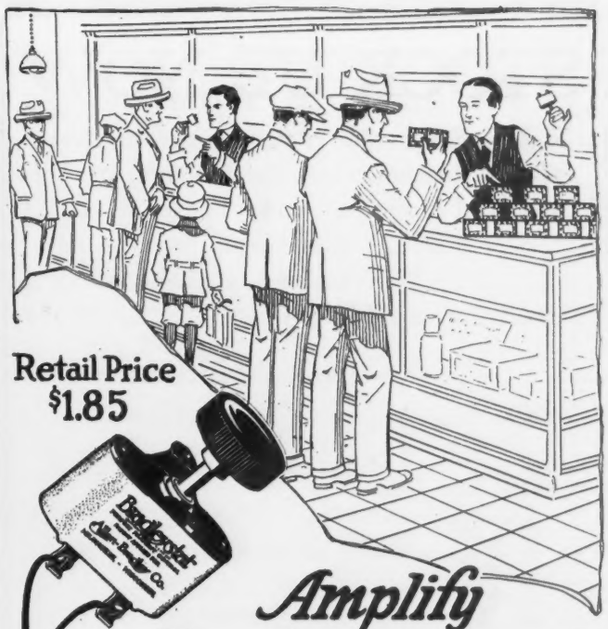
R-2 Magnavox Radio with 18-inch horn (here illustrated) for those who wish the utmost in amplifying power; for large audiences, dance halls, etc. **Price $85.00**

Model "C" Magnavox Power Amplifier insures getting the largest possible power input for your Magnavox Radio. 2 stage $80.00, 3 stage 110.00

Write today for name of nearest distributor and details of Magnavox Selling Plan.

THE MAGNAVOX COMPANY
Home Office and Factory: Oakland, California
New York Office: 370 Seventh Avenue

MAGNAVOX Radio
The Reproducer Supreme

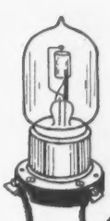


Amplify Your Radio Sales with Bradleystat

PERFECT FILAMENT CONTROL

Radio products that are nationally advertised have a powerful sales punch behind them. They stimulate business for you and increase your profits through rapid turn-over.

The Bradleystat is advertised in every prominent radio publication with full page space. No rheostat receives greater publicity. Get your stock of Bradleystats, today, and watch your sales record. See your jobber, now.



Allen-Bradley Co.
Electric Controlling Apparatus
490 Clinton Street, Milwaukee, Wis.

MAIL THIS COUPON, TODAY

Allen-Bradley Co.
490 Clinton St.
Milwaukee, Wis.

Please send me complete sales plan with prices on the Bradleystat.

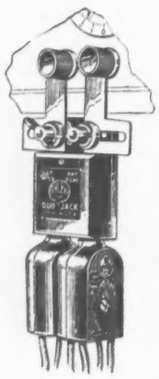
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STOCK UP NOW

Radio will receive a very generous share of the Christmas buying this month. Be prepared to offer your trade RADIO ESSENTIALS that will pay you a liberal PROFIT and will give the utmost in satisfactory PERFORMANCE.

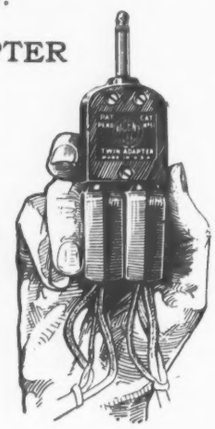


Don't Improvise—
"Pacentize"
PACENT DUOJACK

instantly converts an ordinary binding-post set to a Plug and Jack set. Also provides for connecting two pairs of phones, or a loud speaker and head-set, to your receiver. Cat. No. 53. Price $1.50.

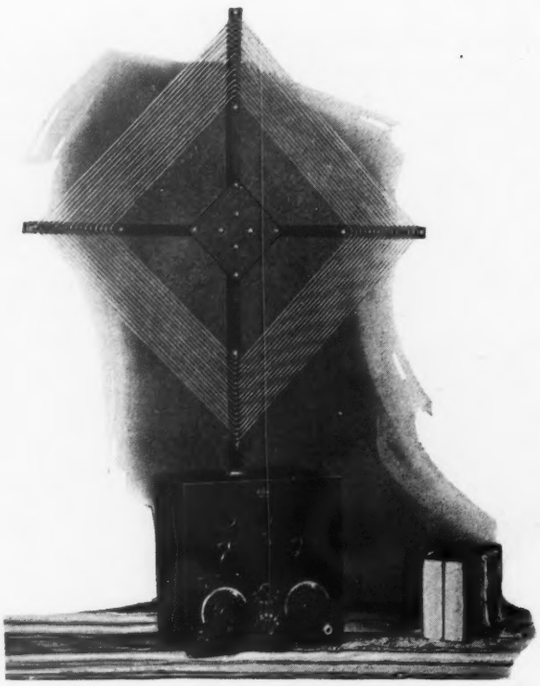
PACENT TWINADAPTER

The only device which allows a single jack to accommodate two plugs. Ideal for connecting pair of phones and loud speaker at the same time. Beautifully made and a quick seller. Cat. No. 51. Price $1.50.



The two RADIO ESSENTIALS shown above are worthy representatives of a specialized line of quality plug and jack equipment. All PACENT products are endorsed by experts and leading set manufacturers. Write today for the PACENT Sales Plan and descriptive Bulletins MD100.

PACENT ELECTRIC COMPANY
INCORPORATED
Manufacturers and Distributors of Radio and Electrical Essentials
Executive Offices: 22 Park Place, New York, N. Y.
BRANCH OFFICES
Philadelphia, Bourse Building
Chicago, 33 S. Clinton St.
Washington, D.C., Munsey Bldg.
San Francisco, Sheldon Bldg.
Members, Radio Section Associated Mfrs. of Electrical Supplies
Canadian and British Licensees Colonial Radio, Ltd., Hamilton, Canada



HE WAS FEELING BLUE ON THE GROUND FLOOR —UNTIL D-7 CAME ALONG!

One dealer on the ground floor of a New York skyscraper said he couldn't sell indoor loop sets—because of the unfavorable position of his store.

Then along came De Forest's D-7 Reflex Radiophone* Receiver and with an indoor loop he ranged a thousand miles or so, picked up Louisville, Chicago, Atlanta, Pittsburgh, and Boston.

"That's the set I've been waiting for" said his customer, as the broadcast came crisply and clearly in from half way across the continent.

"It's what I've been waiting for, too," said the dealer to himself as his satisfied customer walked out. "I'm an authorized De Forest dealer from this day on!"

D-7 is the big sensation of the 1923 radio season. It's going to make this a radio Christmas—and a big one for De Forest dealers.

Get this. Five stages of amplification in three tubes. That means storage battery economy. Simple single knob control. No more puzzled customers. Either outside antenna or indoor loop. No more work of antenna installation for those who want to avoid it. Elimination of extraneous noises. No howls and screams. Just the broadcast—clean and crisp. Too good to be true? Prove it to yourself. We let this set do its own talking.

Make your demonstrations with D-7 and watch your sales jump.

It's another De Forest triumph!
Tune in!

DE FOREST RADIO TEL. & TEL. CO.
JERSEY CITY, N. J.

DE FOREST



*Reg. U. S. Pat. Off.

$5.00
1500
Ohms
13,000
Turns



$7.50
2200
Ohms
16,000
Turns

Phones May Come, and Phones May Go, but "Royalfones" Go on Forever



During the past year many phones have been advertised; but few have survived because they lacked one or another of the many qualities which are essential in the perfect phone.

Radio phones are not blanked out like sauce pans, nor are they assembled like toys. A phone is an electrical instrument. Precision and skill are required in its manufacture.

When we built the "Royalfone" we were equipped to manufacture electrical instruments. Our personnel consisted of men who know phones. These are the reasons why the "Royalfone" is mechanically perfect.

We know that every "Royalfone" will give entire satisfaction because every "Royalfone" is thoroughly tested before it leaves our factory.

Orders may still be placed for immediate delivery.

ROYAL ELECTRICAL LABORATORIES
MANUFACTURERS OF
Electrical and Radio Equipment
NEWARK N-J-

Royalfone

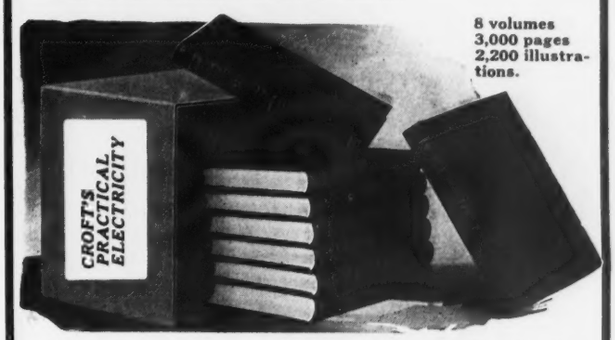


WE have clipped $8.00 off the price of the most popular electrical library in America — made it $19.50 instead of $27.50, a reduction of about 30%. And more than that, we are offering the easiest terms we have ever made on the Croft books. You now pay, **not** $5 a month **nor** even $3 a month, but the sum of $1.50 in ten days and the balance at the rate of **only** $2 a month.

Order Now and Save $8.00

on the CROFT ELECTRICAL LIBRARY

THIS price cut is by far the most important announcement we have ever made to the electrical industry. Think of getting this great Home Study Course and Reference Library at $19.50—a saving of $8.00! This is a real opportunity! No electrical worker who wants to fill a bigger job can afford to miss it. Hundreds of men have told us that the Croft Library at $27.50 was the best buy on the market. At $19.50 it represents the **biggest bargain** in sound electrical training ever offered to the electrical workers of America.



**8 volumes
3,000 pages
2,200 illustrations.**

IN the Croft books you will find complete, detailed and up-to-the-minute information on electricity, from the simplest principles, to complete and economical operation of a central station—motors, generators, armatures, commutators, transformers, circuits, currents, switchboards, distribution systems—electrical machinery of every type, installation, operation and repair—wiring for light and power—how to do it mechanically perfect, in accordance with the National Electrical Code—wiring of finished buildings—Underwriters' and municipal requirements—how to do the complete job, from estimating it, to completion—illumination in its every phase—the latest and most improved methods of lighting—lamps and lighting effects.

Free Examination for 10 Days

We want you to test our statements—we want you to compare the Croft books with others. Fill in and mail the coupon attached and we will send you the entire set of eight volumes for ten days' Free Examination. We take all the risk—pay all charges. You assume no obligation—you pay nothing unless you decide to keep the books. Then $1.50 in ten days and the balance at the rate of $2 a month. Send the coupon NOW and see the books for yourself. Our new price and our new terms make it possible for anyone to own a set of Croft.

Send no money—just the coupon

Free Examination Coupon

McGraw-Hill Book Co., Inc.
370 Seventh Avenue, New York.

Gentlemen:—Please send me the Library of Practical Electricity (shipping charge prepaid) for 10 days' free examination. If satisfactory, I will send $1.50 in ten days and $2.00 a month until the special price of $19.50 has been paid. If not wanted I will write you for return shipping instructions.

Name .....

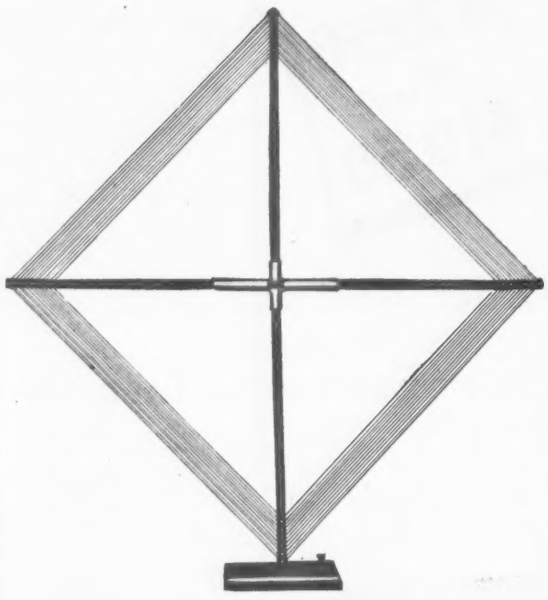
Home Address .....

City and State .....

Employed by .....

Occupation ..... E.M. 12-22

RADI-UN LOOPS



AT LAST

A real 24-inch loop aerial shipped completely assembled all ready to use. Weighs all boxed 2 lbs.

$7.00 List

We Also Distribute

Cotoco	Signal
Erla	Dubilier
Brandes	Pacent
Atwater-Kent	Master Baldwins
Howard	Audiola

TUBES

Myers—Cunningham—Radiotron—W.D. 11

REAL DISCOUNTS

PROMPT SHIPMENTS

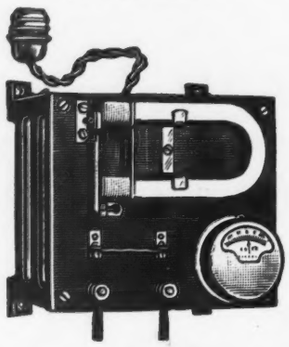
Write or Wire for descriptive matter and discounts

HUDSON - ROSS

121 W. Madison Street, Chicago

The Fore Radio Battery Charger

$17.50 List



EVERY Radio Fan and Automobile Owner is a prospect for the sale of a Fore Battery Charger.

Type 1-A illustrated here will charge either 6-volt "A," or 22½-volt "B" batteries. Easily operated from any lamp socket.

For more than 6 years Fore Battery Chargers have been giving satisfactory service to owners all over the United States. Not a new, but a tried and proven product.

Write Us for Full Particulars and Attractive Discounts

MANUFACTURED BY

FORE ELECTRICAL MFG. CO.

ST. LOUIS, MO.

SALES DEPARTMENT

THE ZINKE COMPANY

1323 S. MICHIGAN AVENUE, CHICAGO, ILLS.

DELFELCO

RADIO B BATTERIES

THEY ARE

Dependable
Extra Heavy
Longer Life
Fully Guaranteed
Easily Connected
Larger Cells
Connections Positive
Once Tried Always Used

DISTRIBUTORS WANTED

DEALERS and JOBBERS

WRITE FOR OUR PROPOSITION

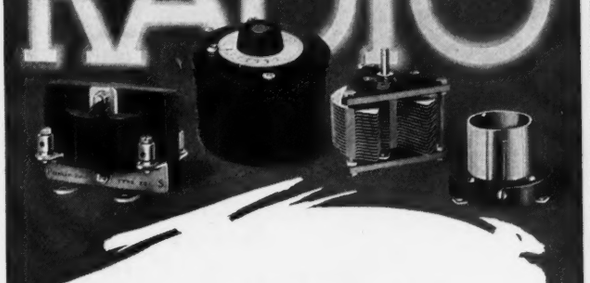
Delfelco Battery Corporation

Pawtucket, R. I., U. S. A.

General Office — 12 Meeting Street

Factory — 28 Bayley Street

RADIO



Your selection of electrical merchandise was made from that of established and reliable manufacturers. Can you, accordingly, afford to handle other than reliable radio apparatus?

The GENERAL RADIO COMPANY was one of the earliest manufacturers of radio instruments. It has for years maintained a research laboratory for the development and improvement of its instruments.

If you value quality, a guarantee and reliability, we recommend that you carry GENERAL RADIO apparatus.

Send for Bulletin M.

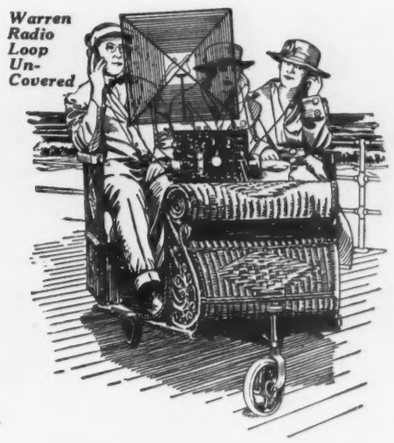
General Radio Company

Manufacturers of

Electrical and Radio Laboratory Apparatus

Massachusetts Ave. and Windsor Street

Cambridge 39 Massachusetts



Increasing Demand for the Warren Radio Loop

How Many Are You Selling?

Loops are rapidly replacing the old outside aerial—especially for the more sensitive tube sets. Most of them are Warren Radio Loops. Extremely powerful, extra well made, exclusive advantages. They leave nothing to be desired. Their advantages are being told every month to thousands of radio fans through generous national advertising. Your customers read this advertising. You can sell quantities of Warrenloops. One or two will demonstrate their profitableness. Order TODAY.

Type-A-737 (300-700 meters) 6 inches square—non-directional	$10.00
Type-A-7236 (175-1000 meters) 6 inches square—non-directional	12.00
Type-B-2527 (300-700 meters) 18 inches square—directional	20.00
Type-BL-2520 (200-18,000 meters) with honeycomb coil. 18 in. sq. —directional	25.00

Send for Bulletin G, 102

V-DE-CO RADIO MFG. CO.

Dept. L. Asbury Park, N. J.

Are YOU Selling Weston Voltmeters?

THERE are now about 700,000 vacuum tube sets in use in the United States! Everyone of these sets should have either a filament voltmeter or filament ammeter to prolong the life of the tubes and aid quick, exact tuning. The Weston is the premier instrument in either case. And the cost is slight. It is no more than that of a single tube—and the first cost is the only cost. Improve this profit-making opportunity—and at the same time render your customers a valuable service.

Write for circular describing the complete group of Weston Radio Instruments. Prompt shipments made from stock.

Weston Electrical Instrument Co.

181 Weston Ave., Newark, N. J.

Electrical Indicating Instrument Authorities Since 1888.

WESTON



"STANDARD" *The World Over*

ELECTRICAL INSTRUMENTS

An Indicating Instrument For Every Individual Need and Industrial Purpose

MURDOCK RADIO

STANDARD APPARATUS SINCE 1904

SINCE 1904—over 17 years ago—experts in radio experiments have been using Murdock apparatus.

The demonstrated success of Murdock Head Phones during these years, enables us to positively guarantee the most satisfactory service to all who use them.

Dealers who are limiting their radio lines to those of long standing and proven quality, find Murdock Phones one of their leading sellers.

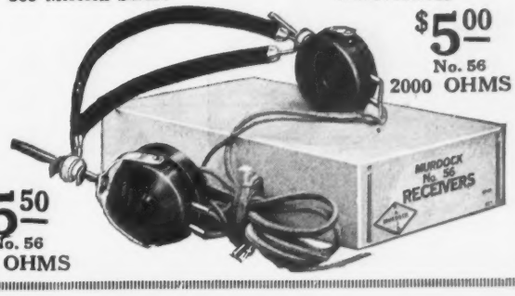
WM. J. MURDOCK CO.

348 Washington Ave., Chelsea, Mass.

Sales Offices:

1270 Broadway New York

509 Mission Street San Francisco



$5.00
No. 56
2000 OHMS

$5.50
No. 56
3000 OHMS

Moulded Radio Accessories

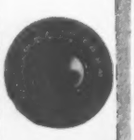



Manufacturers of Approved Material

Knobs Panels
Couplers Rotors
Dials Stators

Dealers and Jobbers!

Write for new complete Catalog.




International Insulating Corp.

Radio Dept. 25 West 45th St. New York. Factory Springfield, Mass.

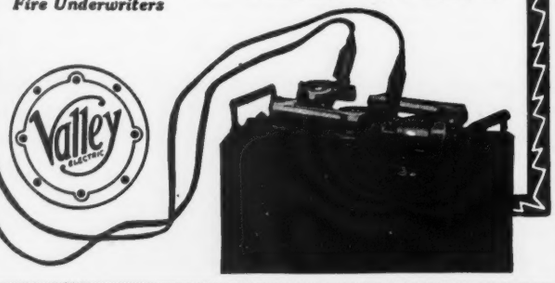


The Valley Charger Keeps Power in the Battery

This efficient charger recharges "dead" radio and automobile batteries. It plugs to any home light socket, and has clips for the battery terminal.
No bulbs, no sticking, no fire risk, no oiling. Self-starting and long life. Handles both 6-v A-Battery and 22½-v B-Battery and sells at **$18.00.** Get your stock now.

Approved by National Board of Fire Underwriters

VALLEY ELECTRIC CO.
3161 S. Kingshighway, St. Louis, Mo.



AUDIOLA
CHICAGO

Crystal Receiving Sets

Are manufactured to produce the maximum in receiver efficiency.

The twenty-three plate variable condenser permits of exceptionally sharp and accurate tuning.

A handsome, compact set that is bringing profits to AUDIOLA dealers.

Write for specifications and trade discounts.

Retails $10.00



We have some good territory still open. High grade jobbers and representatives please write us.

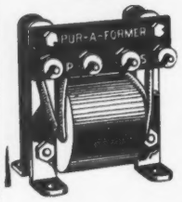
AUDIOLA Radio Company
432 S. Green St., Chicago



HARRY ALTER'S POCKETBOOK

The Audio Amplifying
PUR-A-FORMER

List Price $3.50



Here's a transformer without fancy frills or fancy finishes. Real quality throughout at a list price that will appeal to every amateur. Winding ratio 4½ to 1. Our discount to the trade allows you the profit that you're entitled to.



Send for the October "Pocketbook"

Each month you should receive the "POCKETBOOK," our net price catalog, containing 100 pages of Radio Electrical and Lighting values. The "POCKETBOOK" is sent only to electrical dealers and contractors. Write us on your letter-head.



120-126 No. May St., Chicago

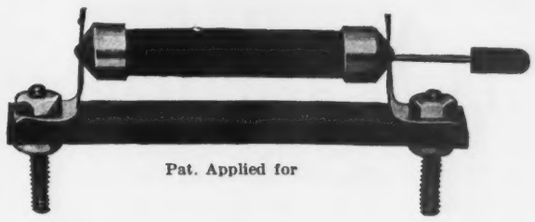
A FEW RADIO FACTS

- Bakelite Dials
- Bakelite Sockets
- Crystal Detectors
- Variable Condensers
- Fixed Condensers
- Rheostats
- Sans-Aerial Attachment
- Strain Insulators
- Binding Posts
- Switch Points
- Switch Stops
- Lever Switches

VOLUME BUSINESS in high QUALITY MERCHANDISE with SMALL PROFITS makes a SUCCESSFUL BUSINESS. IT IS OUR AIM TO BE SUCCESSFUL.

Increased volume enables us to further reduce our present small profits. The wise jobber will consult us before buying. Samples and price lists on request.

AERO MANUFACTURING CO.
142 Market St., Newark, N. J.



Pat. Applied for

The Only One in America

With the usual type of "Grid Leak," which is of fixed value, it is necessary to try a number of them to determine the one best suited.

The Durham Variable High Resistance
(Adjustable Grid Leak)

is the only one of its kind now on the market, because it is *adjustable* over a wide range and will maintain its value permanently after initial setting—It is non-conductive and has negligible capacity.

Made in four sizes:

No. 100—1,000 to 100,000 ohm range
No. 101—100,000 to 5,000,000 ohm range

Wire or write for samples and prices to

DURHAM & COMPANY
Radio Engineers
1936 Market Street, Philadelphia, Pa.



Add a Sale to Every Sale on Radio

Every vacuum tube that is sold opens the way directly for the additional sale of the



RADECO Safety Fuse
(Patent Pending)

—a perfected protective device that fits any standard tube used in any standard socket without affecting the efficiency of the set. Sell at

4 for $1 list

Liberal discount to dealers. Goods packaged. Consistent advertising running in leading radio magazines.

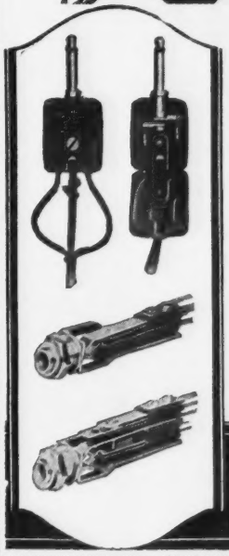
RADIO EQUIPMENT CO.
630 Washington Street, Boston
New England's oldest exclusive Radio House



Radio

Head Sets
Jacks, Plugs,
Cords,
Condensers,
Microphones

Stromberg-Carlson

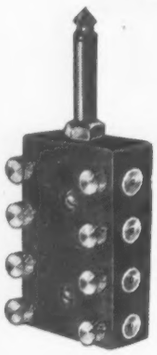


radio apparatus is built by a firm which has had 28 years' experience in the manufacture of telephone and wireless apparatus.

Ask for dealer's Bulletin No. 1029 EM., listing Head Sets and other items of radio equipment.

STROMBERG-CARLSON TELEPHONE MFG. CO.
ROCHESTER, N.Y.
CHICAGO, ILL. KANSAS CITY, MO. TORONTO, ONT.

Ajax Radio Plugs and Jacks



No. 18
Fits Standard Jacks
List, each.....$2.00

Ajax Multi Radio-Phone Plug—No. 18

This plug requires no extra loops or parts to connect from one to four phones in series. Needed by every radio fan. Models for binding posts or standard jacks.

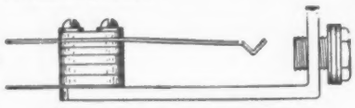


No. 17
List, each,
$0.90

Ajax Radio Plug No. 17
(Universal)

Fits all standard jacks and takes any type of cord terminals—tip, spade, round, or plain. Suitable for use of one or two phones.

Liberal Discounts to the Trade.



Ask for Complete List of Radio Parts.

No. 13. Jack only, 70c. List

Ajax Jacks

Ajax Jacks embody the best materials —German silver springs—Sterling silver contacts—tinned terminals.

Ajax Electric Specialty Co.,
Ajax Bldg., St. Louis, Mo.



Write now for this Sample

We will gladly send to any established jobber and dealer, a sample of the T. B. H. Headset for trial and inspection.

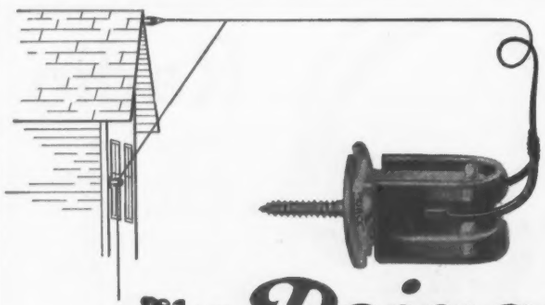
We don't have to make any exaggerated claims for the T. B. H. It is able to stand on its own performance.

T. B. H. Headsets have 8000 turns per receiver and are wound with No. 40 enameled wire (2000 ohms resistance). Every headset guaranteed to be the same.

Here is a good, sturdy, reliable headset that every dealer CAN sell with the knowledge that it will STAY sold.

Write us today for a sample and our attractive discount schedule.

The Telephone Book Holder Corporation
Dansville, N. Y.



The Peirce 190 for Radio Use

A complete Unit.
The screw, bracket and insulator are assembled in a complete unit, ready for use.

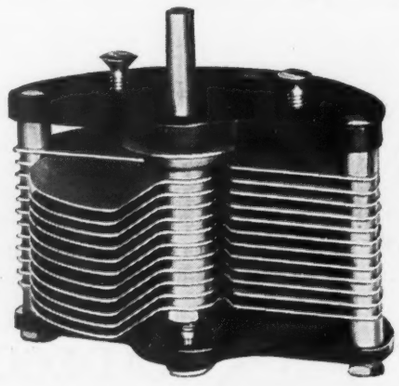
Easy to Install.
The One Ninety fits the hand like a screw driver. A jab, a few turns, and it's in.

Durable.
The metal part of the bracket is completely hot galvanized. The insulator is made of the best grade of brown glazed porcelain.

Low Cost.
The cost of the One Ninety complete, is no more than that of other insulators without screw or bracket.

Ask your Radio Dealer

HUBBARD & COMPANY
Pittsburgh



Variable Condensers

To manufacturers, jobbers and distributors, we offer quick deliveries of guaranteed Radio Parts. We have a large, modern equipment, a seasoned and experienced organization, and ability to serve you intelligently and well.

Let us send samples and quotations.

United Mfg. and Distributing Co.
536 Lake Shore Drive, Chicago, Ill.

Make this an IRVINGTON Radio Xmas

FLEXIBLE VARNISH TUBING
All Colors "Spaghetti" All Sizes
"RADIOLAC"
Clear Black
A varnish for radio requirements
"RADIOCEL"
Black impregnated—moisture proof, non-shrinkable tubes
"CELLULAK"
PANELS TUBES
Laminated material combining finish with the best insulating qualities
Yellow PAPER VARNISH CAMBRIC Black SILK

The better radio products all have some Irvington material incorporated into them. They are a sign of quality.

Irvington Radio Products are made by a company which for sixteen years has been supplying electrical manufacturers with the highest grade insulating materials on the market.

Made to suit any requirements. Data and Prices Upon Request.

Irvington Varnish & Insulator Co.
Irvington, N. J.

Sales Representatives:

Mitchell-Rand Mfg. Co. N. Y.
E. N. Wolcott Rochester
Clapp & Lamoree Los Angeles—San Francisco
L. L. Fleig & Co. Chicago
Consumers Rubber Co. Cleveland
T. C. White Elec. Supply Co., St. Louis
F. C. Scofield Toronto

Amazingly Clear!

—is amateur's and expert's verdict when speaking of Elwood Phones. They invariably sound the praises of this outstanding Elwood Feature.

ELWOOD HEAD SETS

today are the choice of radio men who demand the utmost in tone clarity, sensitivity and head fitting comfort.

2000 ohms—$5.50. 3000 ohms—$6.50

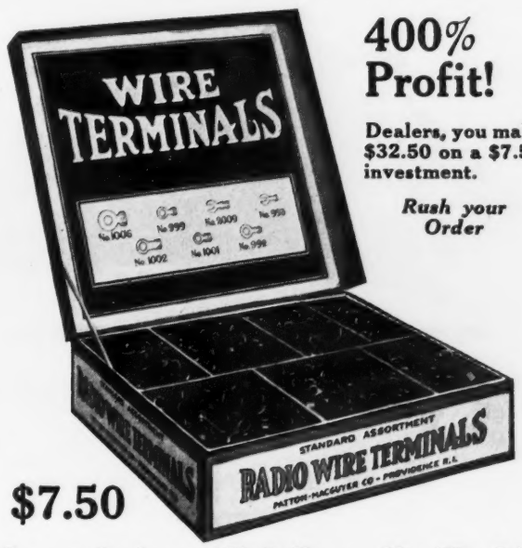
Write for Dealer proposition

"When they 'listen in' with Elwood, they want to buy"

ELWOOD ELECTRIC CO. INC.

4 Randall Avenue
Bridgeport, Conn.





400% Profit!

Dealers, you make $32.50 on a $7.50 investment.

Rush your Order

$7.50

Seven Styles—All Sellers—No "Duds"

4,875 terminals. Figure it out at 10c. a dozen. Rush your order.

These are quality goods. Styles are those most in demand. You'll clean them out easily. Look around your store and see how many items you have that give you a 400% profit. If you have any doubt as to the proposition write for sample card showing *all* styles of Patton-MacGuyer Co. radio terminals.

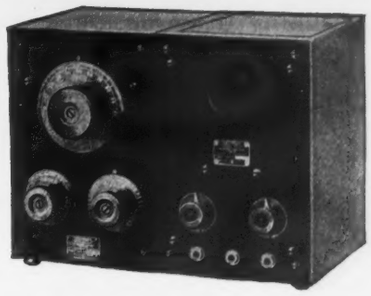
The Package is a Self Selling Counter Display.

Manufactured by

PATTON-MACGUYER CO.
31 Mathewson Street, Providence, R. I.

JOBBERS—Write for our Discounts on Orders in Quantity Lots.

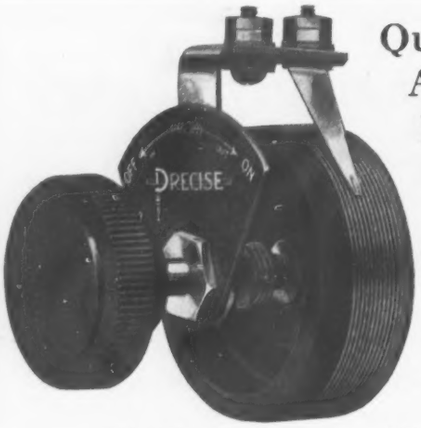
KLAUS RADIO



Distributors for the Radio Corporation of America. Write for complete Radio Corporation list and other standard lines. Large stocks. Prompt shipments.

Get your copy of our new catalog and trade discount sheets. Write today.

Klaus Radio & Electric Co.
Authorized Distributors
Dept. 500, Eureka, Ill.



Quick and Accurate Filament Control is now Possible

The Precise Vernier Rheostat—

a drum type instrument of original design. An outward pull on the knob closes the circuit, while turning it in in either direction varies the resistance to any infinitesimal degree.

Write for details

Also Precise Vernier Condensers

having exceedingly straight line capacity curve and unusually low "zero" capacity.

Precise Audio Transformer—

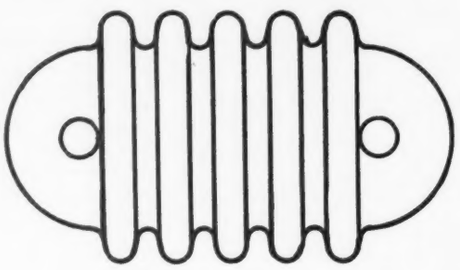
a worthy member of this aristocracy.

PRECISE RADIO EQUIPMENT
MANUFACTURING CORPORATION.
254 MILL STREET ROCHESTER, N.Y.

Radio Insulators

For Prompt Delivery

To meet the demand for Insulators for Aerials of Radio Installations we have designed and now offer our Radio Insulators Nos. 0, 1 and 2, shown below.



	Length Inches	Diameter Inches	Hole Inches
No. 0	2½	1⅜	7/32
No. 1	3	2	¼
No. 2	4½	2¾	9/32

Made of pure white vitrified Porcelain, brown glazed

Illinois Electric Porcelain Co.

Macomb, Illinois

Stocked?

Yes, but with what?

Better apparatus is the order of the day. The time is fast approaching when customers will *demand*

The AMERTRAN



Price $7
Weight 1 lb.

broad-band audio frequency super-amplifying transformer

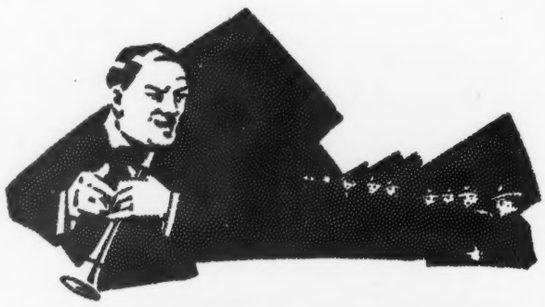
Make sure you are plentifully stocked, so that you will not lose this trade and all the rest that seeks the really dependable type of equipment and supplies.

Electrical Dealers' territory still open. Write for full details.

American Transformer Company

Designers and Builders of Radio Transformers for over 20 years.

178 Emmet Street, Newark, N. J.



GETTING ATTENTION

Tooting a horn is one way, Advertising, another. If you have a business want make it known to the other readers of this paper. Reach the whole industry through an ad in the

SEARCHLIGHT SECTION

For Every Business Want

"Think* SEARCHLIGHT *First"

0154



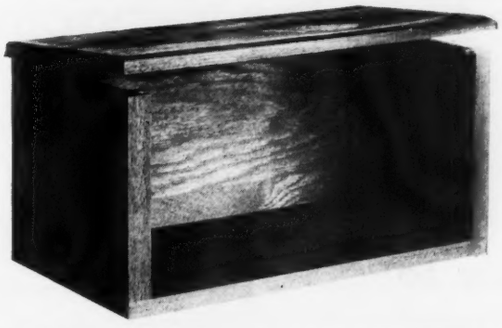
"Whaling Radio Products"

Several of the largest radio manufacturers are using Whaling Cabinets because of their quality workmanship, first class materials and handsome finish. Made of genuine mahogany, varnished and rubbed. Easy to set up. Knock down cabinets in four standard sizes:

6 x 6 x 6 ..... $4.00
6 x 6 x 12 ..... 5.00
6 x 6 x 18 ..... 6.00
6½ x 6½ x 24 ..... 7.00

We can also furnish special sizes of any design or any wood radio products. Write today for manufacturer and dealer discounts.

THE G. E. WHALING & SON CO.
803 Champlain Ave., Cleveland, Ohio





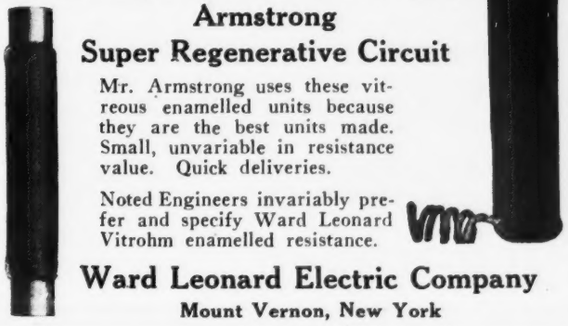
Worth More **Costs Less**

TRUE-TONE sensitivity obtained by 20,000 turns of wire on coils. Noiseless tinsel cords. Terminals concealed in phone cups.

$5.00 3000 Ohms

Quality and performance GUARANTEED
Write or Wire for names of TRUE-TONE jobbers in your territory.
TRUE-TONE RADIO MFG. CO.
188 No. La Salle St., Chicago, Ill.

H S 12,000 ohm Resistor
Actual Size, 4 in. Long for the Armstrong Super Regenerative Circuit



Mr. Armstrong uses these vitreous enamelled units because they are the best units made. Small, unvariable in resistance value. Quick deliveries.

Noted Engineers invariably prefer and specify Ward Leonard Vitrohm enamelled resistance.

Ward Leonard Electric Company
Mount Vernon, New York

American RADIO Exposition

The Official Exposition for American Manufacturers

with the endorsement of the

NATIONAL RADIO CHAMBER *of* COMMERCE

and sanction of the Radio Apparatus Section of the

ASSOCIATED MANUFACTURERS *of* ELECTRICAL SUPPLIES

Grand Central Palace
New York

December 21st to 30th
(Sunday excepted but Christmas Day included)

This first really comprehensive Exposition is to be staged in a manner worthy of a great industry.

The leading manufacturers have contracted for space. This opportunity to display Radio products to thousands of buyers during the holiday season is an unusual one. The exposition will be one of New York's big features in connection with National Radio Week.

For further particulars write or wire

American Radio Exposition Company
120 BROADWAY, NEW YORK
Telephone John 0009

LET'S MAKE THIS A REAL RADIO CHRISTMAS

The Holiday season is going to mean increased Radio sales. **The Eby Silent Salesman** (illustrated here) will assist you in making quicker sales, as the prospective customer can wait on himself.

One placed in your bulk window brings in the customer. One placed in your show case will complete the sale. Full information as to specifications and prices of posts printed on the back.



Invest in two of these attractive boards. They will pay for themselves the first week.

Price of the **Eby Silent Salesman** to Jobbers, Manufacturers and Dealers, $1.00 net, F.O.B. Philadelphia. Advise how many you can use. Orders filled same day received.

THE H. H. EBY MANUFACTURING CO., PHILADELPHIA, PA.

Are You Handling Condensers that Demand NONE of Your Time for Servicing?

When you sell parts why solicit a hoard of questions due to the sets not working. *Sell parts you know will work.*

U. S. Tool Condensers have proved their own worth. A number of leading manufacturers buy from us for their sets and you may rest assured that they will work for your customers.



VARIABLE CONDENSER
Panel Mount Type with Knob and Pointer Guaranteed.
67 plate .0015 21 plate .0005
43 plate .001 11 plate .00025
3 plate .00007

We are ready to ship by express!

U. S. Tool Condensers have been on the market for ten months. Our books show numerous records from many of the country's leading distributors.

The end pieces are Condensite Celeron, the best insulation for radio current. Plates are 99 per cent aluminum. All other parts are of brass, nickel plated. Don't hesitate to place your order—U. S. Tool Condensers sell.

You will need a stock to meet Christmas cash demand. Wire us today to ship.

U. S. Tool Co., Inc.
Manufacturers and Engineers
117 Mechanic St., Newark, N. J.
Write for the name of our nearest distributor



VERNIER VARIABLE CONDENSER
Panel Mount Type Guaranteed.
14 plate Complete with Dial and Knob.
24 plate Complete with Dial and Knob.
46 plate Complete with Dial and Knob.

Employment — Business Opportunities — Equipment

The most up-to-the-minute opportunities in the electrical field appear in the

SEARCHLIGHT SECTION

It will be worth your while to consult the Searchlight Section in this issue and every issue of *Electrical Merchandising.*

Whenever you have something to offer **"*Think* SEARCHLIGHT *First*"** Whenever you are in need of something

UNDERWRITERS' LABORATORIES
INCORPORATED 1901
Established and Maintained by the NATIONAL BOARD OF FIRE UNDERWRITERS
For Service—Not Profit

REMOVAL NOTICE

The New York Office will be removed from 25 City Hall Place and located December 1st

In UNDERWRITERS' LABORATORIES BUILDING
109 LEONARD STREET
Between Broadway and Lafayette Sts.
Opposite New York Life Insurance Company Building
TELEPHONE: FRANKLIN 3796

At the new location will be continued the work of our Electrical Testing Laboratory and the conduct of Inspections at Factories and Label Service in the Metropolitan District, New York State, New Jersey, and Southern Connecticut.

All interested in any phase of the work of Underwriters' Laboratories are cordially invited to utilize the services of our New York Office.

DANA PIERCE, *Vice-President.*

ARGUS Lightning Arrester
Approved by the Board of Underwriters

The one arrester that can be depended upon to protect against lightning. Also crosses with high tension currents. For protection to radio instruments there is none better and the list price is only $1.50.

A most attractive discount to the dealer. Write for details.

Foote, Pierson & Co., Inc.
160 Duane St., New York

TRADE MARK
HEMINGRAY
REGISTERED.

Standard Glass Insulators
Used for Years

Specify Hemingray for Best Results

HEMINGRAY GLASS COMPANY
Incorporated 1870
Office—Muncie, Indiana

Self Esteem and Advertising

An Editorial from *Advertising and Selling*

INDUSTRIAL ADVERTISING is rapidly forging to the front.

The formation of the Industrial Advertising Department of the Associated Advertising Clubs of the World is an important step towards better marketing methods. It is important because it directs attention to the truly enormous markets not infrequently ignored since there is nothing sensational about them.

New advertisers especially like to see their message in magazines which *they* read, on posters placed where *they* travel. They like to have their friends notice and comment on the advertising. It helps expand the chest a bit. But it does not make a profitable investment.

The advertising dollar should go where the greatest number of profitable prospects are located, regardless of whether or not the advertiser himself ever sees the message. Unfortunately we do not manufacture goods to sell to ourselves. If we did, many an advertiser would be getting profitable results instead of wondering why his advertising does not pay.

This self-esteem has worked to the disadvantage of the business paper, which is generally the most economical means of reaching the industrial market. But the necessity for selling the most goods at the least cost per unit is bringing about a real change, of which the Industrial Advertising Department is a natural outcome.

Mu-Rad RADIO Laboratories
AMPLIFICATION DISTANCE

Astonishing ! ! !
PERFORMANCE
Boosts MU-RAD Sales

As the fans are learning the almost unbelievable sensitivity and efficiency of Mu-Rad Apparatus, sales of this greatly improved radio merchandise are creating talk among the trade. Quality *does* tell and it tells in dollars and cents profit.



A Revelation to the Radio World

INVENTIONS by Mu-Rad engineers are establishing new high standards of radio reception. A Mu-Rad Radio Frequency Receiver with a small loop aerial is more sensitive, more selective, simpler to operate and more compact than any other type of receiving equipment. These are **facts,** determined by impartial tests and comparisons.

Guaranteed for 1000 Mile Reception

We substantiate these claims by a positive, written guarantee on each Mu-Rad Receiver of 1000 miles reception on a loop—another innovation in the marketing of radio receivers.

Two Types of MU-RAD SETS

Type MA-12 3-Stage R-F and Detector List $128

Type MA-13 3-Stage R-F, Detector and 2 Stages A.F. List $160.

Mu-Rad R-F Amplifying Transformers

200-600 Meters—Air Core



Three Types

Type T-11 for the first stage $6.00

Type T-11A for the second stage $6.50

Type T-11B for the third stage $7.00

The same transformer that gives to Mu-Rad Receivers their extreme R-F Amplification. The skill of Mu-Rad Radio engineers has been concentrated on this instrument until all the objections common to most transformers were entirely eliminated.

The absence of the usual iron core increases amplification by eliminating iron losses. No metal to produce undesirable capacity effects and eddy current loss. So very accurately are Mu-Rad Transformers made that their performance varies less than a half of one per cent.

Write TODAY for Literature, Discounts and Our Very Unusual Proposition.

It Pays to Be A Mu-Rad Dealer.

MU-RAD LABORATORIES
805 Fifth Ave., Asbury Park, N. J.



Don't Overlook Opportunities

Men who regularly keep in touch with the market through other channels often overlook the many opportunities that are to be found in the

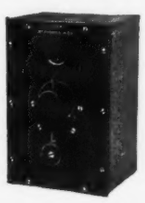
SEARCHLIGHT SECTION
For Every Business Want
"Think* SEARCHLIGHT *First"

6156

"Listen In"

SIGNAL

WHEN you sell Signal—whether Radio parts or sets or any other Signal item—you sell satisfaction. Produced by a plant and an organization whose experience goes back 35 years, there is seasoned knowledge and experienced handicraft in every item. Its finish reflects its character—clean cut, accurate, workman-like in every detail. Each piece will give the service expected of it—and it "looks the part."



Front view of one of our new Signal Junior Detector Units — a clever and popular arrangement by which a complete wide-range set may be built up, a unit at a time, the first and each succeeding unit complete in itself, but the whole augmented as each unit is added. You should post up on this new development. It is sure to be a big seller.

The *Signal* Line Includes—

Radio Parts and Sets
Bells and Buzzers
Transformers
Battery Chargers
Medical Batteries
Telegraph Instruments

SIGNAL Electric Mfg. Co.

Factory and General Offices:

1902 Broadway, Menominee, Mich.

Atlanta
Minneapolis
St. Louis
Boston
Montreal
San Francisco
Cleveland
New York
Chicago
Pittsburgh
Toronto

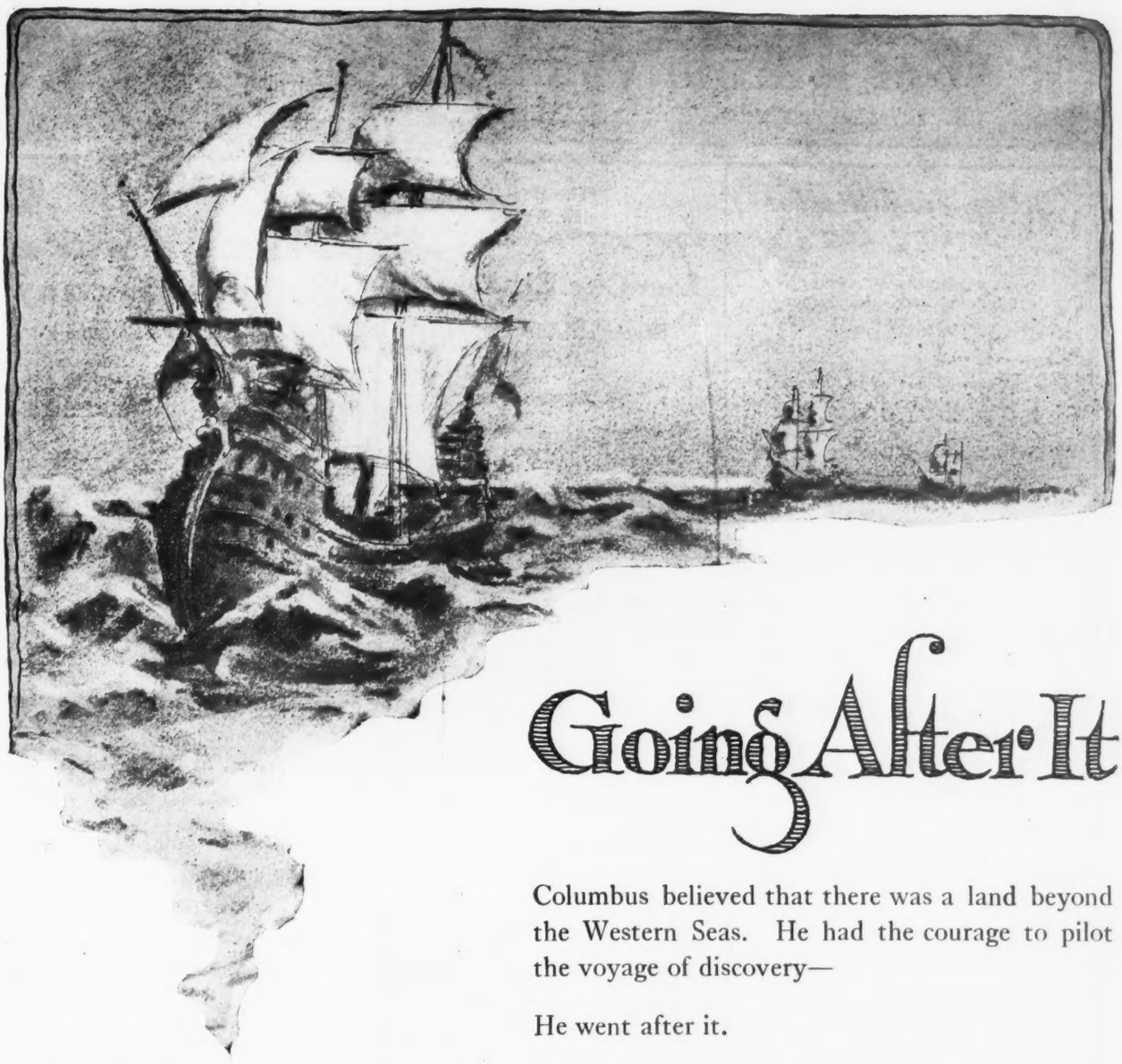
(2038)

BULLETIN COUPON

Signal Elec. Mfg. Co.
1902 Broadway, Menominee, Mich.

Please send bulletin as indicated by X below, to name and address written in the margin of this page.

☐ Radio Equipment
☐ Bells and Buzzers
☐ Medical Batteries
☐ Bell Ringing Transformers
☐ Battery Charger
☐ Telegraph Instruments



Going After It

Columbus believed that there was a land beyond the Western Seas. He had the courage to pilot the voyage of discovery—

He went after it.

Many manufacturers and distributors know there are markets beyond those they now supply.

The business belongs to the man who goes after it.

McGraw-Hill publications will carry your selling message to *the men who buy*.

Each publication is the leader in its field.

McGraw-Hill Publications

Engineering News-Record
American Machinist
Engineering and Mining Journal-Press
Power
Ingenieria Internacional
(Printed in Spanish)
Electric Railway Journal
Bus Transportation
Electrical World
Electrical Merchandising
Coal Age
Chemical and Metallurgical Engineering
Journal of Electricity and Western Industry
(Published in San Francisco)
Industrial Engineer
(Published in Chicago)
American Machinist
European Edition
(Published in London)

McGraw-Hill Company, Inc.

Tenth Avenue at 36th Street
New York City

"Get it from your nearest Jobber"

Better Facilities for Serving You

We recently purchased three-story warehouse, No. 629 Filbert Street. Now adding four-story building and basement, No. 35 N. 7th. Street.

Frank H. Stewart Electric Company

OLD MINT 35-37-39 N. 7th St. Philadelphia

DISTRIBUTING JOBBER

The House that Service Built

Iron City Electric Co.

Electrical Merchandise Distributors

Wholesale Only

Distributors of A.B.C. Washing and Ironing Machines in Western Penna., Northern West Virginia and Western Maryland.

436 7th Ave., Pittsburgh, Pa.

DISTRICT OF COLUMBIA

National Electrical Supply Company

Jobbers and Manufacturers

ELECTRICAL AND AUTOMOBILE SUPPLIES

1328-1330 NEW YORK AVENUE
WASHINGTON, D. C.

HAVE YOU—

received your copy of our new General Supply Catalog No. 6?

Piedmont ELECTRIC CO.

Asheville Greensboro
North Carolina

CARROLL ELECTRIC CO.

JOBBERS

Things Electrical

ORDERS 20 YEARS YOUR SERVICE STATION DEAL WITH US ORDERS

Washington, D. C. Baltimore, Md.

Electrical Merchandising

10th Ave., at 36th St., N. Y.

A "How-to-Sell" idea paper for electrical contractors and retailers of electrical appliances, jobbers and jobber salesmen and manufacturers.

Published Monthly

Subscription $2 a year

ELECTRICAL DEALERS

We Offer You

Quality Products — Liberal Profits — Prompt Service

Distributors for only highest grade Electrical Merchandise.

Write for literature and discounts.

DOUBLEDAY-HILL ELECTRIC CO.

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Oldest and Largest Electrical Supply Jobbers in New Jersey

NEWARK ELECTRICAL SUPPLY CO.

"The House of Quick Service"

223 Market Street
NEWARK
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Only reliable products can be continuously advertised

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Industrial Agricultural Municipal Residential

Over 3000 different types and sizes. Catalogs on request

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Seneca Falls, N. Y.

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Electrical

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are becoming more popular each year. If you are not prepared for this demand, send your order to us at once.

THE PHILADELPHIA ELECTRIC COMPANY SUPPLY DEPT.
130-132 South Eleventh Street
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The Demand for

Electrical Merchandising

The Business Magazine of the Electrical Trade

has been so great that every issue from Jan. to Oct., 1922 is entirely out of stock.

Electrical Merchandising
Tenth Avenue at 36th Street
NEW YORK CITY, N. Y.

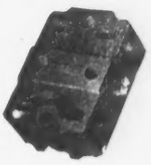
AICO COLD MOLDED PARTS

Many large Electrical Manufacturers have reduced costs with AICO PARTS. Why not you?



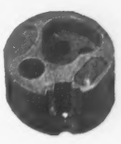
The adaptability and economy of AICO COLD MOLDED PARTS particularly fits them for use in high grade electrical appliances and devices.

Our engineering force has succeeded in appreciably reducing production costs for many electrical manufacturers and stands ready at all times to take up your problems in detail.





We will be glad to give you any assistance possible without obligation to yourself. Get in touch with us today.



American Insulator Corporation
New Freedom, Pennsylvania

That "Home Electrical" Section

(see pages 75-82, this issue)



Have salesmen carry copies and deliver to every prospect they call on.

Eight Practical Uses

1. Give it to visitors to Electric Home exhibits.
2. Use it as a follow-up to all visitors at Electric Home exhibits.
3. Give it out to club women when electrical subjects are discussed at their meetings.
4. Give it to visitors (or preferred customers) who call at the sales rooms. Use in conjunction with your own literature.
5. Use it as a mail follow-up to purchasers of large unit devices—washing and ironing machines, ranges, refrigerators, etc.
6. Have your service man deliver copies of it when they make call.
7. Send it out with a service letter to new users of large household appliances.
8. Have salesman carry copies and deliver to every prospect that they call on.

Additional copies of the November and December "Home Electrical" Sections for your use as above can be furnished by *Electrical Merchandising* at the rates of

5 cents each in quantities above 200, and
4 cents each in quantities above 1000.

In quantities above 5000 special rates will be quoted upon application to

ELECTRICAL MERCHANDISING
10TH AVE. AT 36TH ST.
NEW YORK CITY

POSITIONS VACANT

MANAGER and buyer wanted for our lighting fixture department. Write, giving full particulars of your qualifications, Wm. Hall Electric Co., Dayton, Ohio.

POSITIONS WANTED

YOUNG man, thirty-one, single, desires connection manufacturer or distributor; office and selling experience; location immaterial. PW-517, Elec. Merchandising, 10th Ave. at 36th St., New York City.

BUYER or general manager electrical jobbing and wholesale house, twelve years' experience as buyer, seeks new connection in this capacity; live wire, know trade from A to Z; experienced in buying for quick turn-over; mechanical electrical engineering education; now located with large Southern distributor; annual purchases over $1,000,000; married, age thirty-five. PW-506, Elec. Merchandising, Real Estate Trust Bldg., Philadelphia, Pa.

AGENTS AND SALESMEN

Manufacturer's Agent

With experience in selling to central stations, electrical trade and department stores to handle an electric iron made by prominent manufacturer and sold on a definite selling plan that has proved very successful. AS-511, Elec. Merchandising, Real Estate Trust Bldg., Philadelphia, Pa.

SALESMEN WANTED

Able Household Appliance Salesman Wanted

By a progressive dealer in Central Western city of 60,000 population; will pay 15 per cent straight commission. SW-509, Elec. Merchandising, Old Colony Bldg., Chicago, Ill.

Electric and Radio Salesmen

That have been or are calling on electric or radio trade. See Mr. Rice, 6311 N. Clark St., Chicago, Ill.

Lighting Fixture Salesman

Experienced high grade lighting fixture salesman, one for Ohio and Pennsylvania, one for the South; must be producer; house one of the largest and best in country. Give experience and references. SW-515, Elec. Merchandising, 10th Ave. at 36th St., New York City.

Salesman

High grade man, with experience in selling central stations, electrical contractors, department stores and hardware dealers, to handle product of prominent manufacturers; must be able to finance self temporarily as strictly commission. SW-510, Elec. Merchandising, Real Estate Trust Bldg., Philadelphia, Pa.

Salesman

To carry a nice side line of enameled lamps of special design; mention your territory and all particulars. Address H. A. W. Co., 51, W. 19th St., New York.

Salesmen Wanted

To handle Vulcanized Fibre on commission basis in New England, Chicago, Milwaukee and parts of New York State. An excellent opportunity, as customers already established in these territories. Write Campbell Fibre Company, Stanton, Del., for full particulars.

Wanted Sales Manager Vacuum Cleaners

A well-known manufacturer of vacuum cleaners has openings in his distributor organizations for sales managers competent to build up resale organizations locally, and resale or dealer distribution in outside territory.

The remuneration will be based on a salary and bonus arrangement which should be very interesting to a man possessing the required qualifications. The possibilities are limited only by his ability to build up distribution.

At the present time such openings exist in Boston, Detroit, Minneapolis, and San Francisco.

Write in complete confidence giving age, experience, education, married or single, and salary received and expected. Address

AS-518, Electrical Merchandising Leader News Bldg., Cleveland, O.

SALESMEN WANTED

Salesman for Side Line Wanted

One now calling on the electrical supply trade and electric contractors to offer our line of tools on a commission basis. SW-514, Elec. Merchandising, 10th Ave. at 36th St., New York City.

Washing Machine Salesman Wanted

Best in U. S. A., to sell well known high grade electric washer to central stations in big cities for large manufacturer. In replying, please state age, references, selling experience and compensation expected. SW-508, Elec. Merchandising, 10th Ave. at 36th St., New York City.

Experienced Lighting Fixture Salesman

Wanted for residential and commercial work; commission and drawing account. Sanborn Electric Co., Indianapolis, Ind.

Two Experienced Supply Salesmen

An old established jobber in Baltimore territory desires the services of two well trained and experienced supply salesmen. Only men of the very best standing need apply; compensation on the basis of a fixed salary and profit sharing. Address SW-519, Elec. Merchandising, Real Estate Trust Bldg., Philadelphia, Pa.

SALESMEN AVAILABLE

MANUFACTURER of electrical brass goods, wiring devices or specialties can secure services of salesman having desirable trade; twelve years selling; only representative accounts in all New England, New Jersey, Pennsylvania and New York state; first class references. SA-513, Elec. Merchandising, 10th Ave. at 36th St., New York City.

Top Notch Salesman

Glassware or Fixtures, Seeks New Connection

If you need a live producer in Eastern States and Canada write to

G. F. COWPER

Room 62, 113 State St., Boston, Mass

SALESMEN AVAILABLE

CAPABLE man, with long experience selling electrical trade in Minnesota and Dakotas, would like one or two good side lines. SA-507, Elec. Merchandising, Old Colony Bldg., Chicago, Ill.

SALES engineer, associated A. I. E. E., desires a position as sales manager or assistant; have had practical experience electrical contracting, telephone construction and office detail; now finishing seventh year (same firm) as jobber's salesman selling central stations and retail dealers motors, meters, transformers and general supplies. SA-516, Elec. Merchandising, Real Estate Trust Bldg., Philadelphia, Pa.

BUSINESS OPPORTUNITIES

Store For Sale

Oldest established electrical store in Central Kansas town of 8,000. Business last year amounted to $27,000. Will sell for invoice price. Will take about $4,000 to handle it. BO-475, Elec. Merchandising, Old Colony Bldg., Chicago, Ill.

Electrical Merchandising Business

For sale, a going and profitable electrical merchandising business in Indianapolis. $5,000 cash is required, representing approximately 40 per cent of inventory. Further information may be obtained from Jacob Morgan, Lemcke Bldg., Indianapolis.

Electrical Contracting and Retailing Business

In two towns for sale. This is an old established business with a large retail store in each town. These towns are within ten minutes' car ride of each other; $15,000 needed. Stock will inventory this amount. Immediate possession will be given. For further information write BO-512, Elec. Merchandising, 10th Ave. at 36th St., New York City.

BUSINESS FOR SALE

Electrical Contracting and Merchandizing Business For Sale. Corner location—doing $2000 worth of business a month. Electric Sign Shop in connection, if desired—$3500 down, balance monthly payments. Owner leaving city.

Post Office Box 2229, Spokane, Washington

1/6 h.p. MOTOR

less than cost to make



$10

F. O. B. Chicago
Less in quantities

These are Reliable Reynolds Motors. Strictly first class, 40° 1/6 hp. Motors, developing 2½ times full load value. 110 v. 60 cy., 1750 r.p.m. Fully guaranteed. $10. Also bargains in 25, 30, 40 and 50 cycle motors.

Sell guaranteed motors at a bargain price

They're genuine "Reliable Reynolds" motors—not seconds or unknowns. We were "stuck" with the motors through cancelling of contracts. The quantity is becoming limited. How many can you use? Write for prices and get your order in.

REYNOLDS ELECTRIC COMPANY

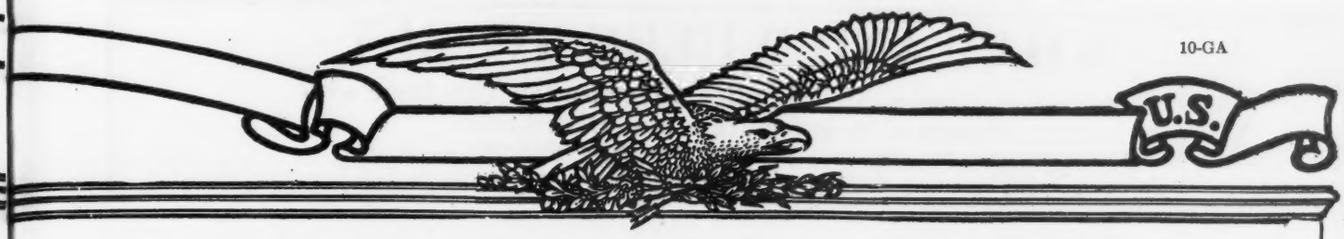
2618 West Congress Street CHICAGO, ILL.

U.S.



WAR DEPARTMENT	SELLING PROGRAM
DECEMBER	DECEMBER
Dec. 7 — SYMINGTON GUN PLANT—Chicago. Ill. Auction. For catalog write Q. M. Construction Service, 3335 Munitions Bldg., Wash., D. C., or Chas. S. Gerth, 101 W. 42nd St., New York City.	Depot, South Amboy, N. J. Auction. For catalog write Phila. Dist. Ordnance Salvage Board, Frankford Arsenal, Philadelphia, Pa.
Dec. 7—MEDICAL SUPPLIES—New Cumberland, Pa. Auction. For catalog write Surplus Property Sect., Office Surgeon General, Washington, D. C.	Dec. 13 — ORDNANCE MATERIALS — Rock Island, Ill. Sealed Bid. For catalog write Commanding Officer, Rock Island Arsenal, Rock Island, Ill.
Dec. 8—LEATHER AND HARNESS—New Cumberland, Pa. Auction. For catalog write Q. M. S. O., 1st Ave. and 59th St., Brooklyn, N. Y.	Dec. 15—Q. M. SUPPLIES — Philadelphia, Pa. Auction. For catalog write Q. M. S. O., 1st Ave. and 59th St., Brooklyn, N. Y.
Dec. 12—Q. M. SUPPLIES Columbus, O. Auction. For catalog write Q. M. S. O., 1819 W. Pershing Road, Chicago, Ill.	Dec. 19 — ORDNANCE MATERIALS—Middletown, Pa. Auction. For catalog write Phila. Dist. Ordnance Salvage Board, Frankford Arsenal, Philadelphia, Pa.
Dec. 13 — ORDNANCE MATERIALS—Morgan	The Government reserves the right to reject any or all bids.
SEND FOR CATALOG	SEND FOR CATALOG

WAR DEP



10-GA

Draw More Than Crowds With These Bargains

Every dollar yields its profit

IT has generally been found good business to take a loss on a few items in order to draw trade for other lines.

But it's better business if you can draw the trade and *not* take the loss.

And still better if each item in the sale yields an *actual profit.*

Thousands of retail stores in all parts of the country are doing business on that basis today, thanks to the opportunity opened by the Government's Surplus Property Sales. The savings made possible by the War Department Sales enable you to offer irresistible bargains *and make big money out of them.* They cover a wide range of merchandise, so your offerings need not have the limited appeal that features most retail sales.

Your business paper describes the sales, their location and date. Watch for them and write to Major J. L. Frink, Chief, Sales Promotion Section, Office, Director of Sales, Room 2515, Munitions Building, Washington, D. C.



Send for this booklet, The Story of War Department Sales.

PARTMENT

WHAT AND WHERE TO BUY

Electrical Appliances and Supplies Advertised in This Issue with Names of Manufacturers and Distributors

Readers interested in any articles not listed in these pages are cordially invited to inform us of their wants and every effort will be made to put them in touch with the proper manufacturers. Readers' Service Department, ELECTRICAL MERCHANDISING, 10th Ave., and 36th St., N. Y. C.

Accessories Cable & Wire
Indiana Rubber & Insulated Wire Co.
Scholes Radio & Mfg. Corp
Simplex Wire & Cable Co.

Adapters
Conn. Elec. & Mfg. Co.
Plainville Elec. Prod. Co.
Timberlake & Sons, J. B.

Adjusters, Cord and Lamp
Austin & Co., M. B.

Agents, Mfrs. (See Jobbers)

Air Compressors
General Electric Co.
Hartford Machine Screw Co.

Air Brush Equipment, Electrically Driven
Decora Mfg. Company

Alarms, Burglar, Fire, Tank
Absolute Con-Tac-Tor Corp.
Foote, Pierson & Co., Inc.
Stanley & Patterson
Westinghouse E. & M. Co.

Alarms, Crossing
Denver Electrical Laboratories

Arresters, Lightning
Foote, Pierson & Co., Inc.
General Electric Co.
Globe Phone Mfg. Co.
Hubbard & Company
Westinghouse Elec. & Mfg. Co.

Annunciators
Denver Electrical Laboratories
Holtzer Cabot Elec. Co.
Stanley & Patterson

Automobile Accessories, Electric
Cuno Engineering Corp.
Hartford Machine Screw Co.
Hubbell, Inc., Harvey
Johns-Manville Inc.
Wakefield Brass Co., F. W.

Batteries, Dry
Hall, A. Berry
National Carbon Co.
Niagara Sales Corp.
W. E. Sup. & Service Corp.
Wholesale Radio Equipment Co.

Batteries, Storage
Allen Bradley Co.
Defalco Battery Corp.
National Carbon Co.
Niagara Sales Corp.
Wholesale Radio Equipment Co.

Battery-Charging Equipment
Advance Battery Mfg. Co.
Automatic Elec. Devices Co
Fore Elec'l Mfg. Co.
General Electric Co.
Robbins & Myers Co., The
Valley Electric Co.
Westinghouse E. & M. Co.

Bearings, Ball
Norma Co. of America

Bearings, Motor and Generator
Norma Co. of America
Westinghouse Elec. & Mfg. Co.

Bells and Buzzers
Beaver Mche. & Tool Co.
Signal Elec. Mfg. Co.
Stanley & Patterson

Bench, Washing Machine
Driskell Bench Co.

Benders, Conduit and Pipe
Austin & Co., M. B.
Martin & Sons, H. P.

Binding Posts
Aero Mfg. Co.
Eby Mfg. Co., H. H.
King Sewing Machine Co.
Scholes Radio & Mfg. Corp.

Blowers, Electric
American Blower Co.

Books, Electric & Technical
Henley Publishing Co.
McGraw-Hill Book Co.
Sleeper Radio Corp.

Boring Devices
Hykon Mfg. Co.

Boxes, Floor
Stanley & Patterson

Boxes, Junction and Outlet
Austin & Co., M. B.
General Electric Co.
National Metal Molding Co.
Richards & Co., Geo. C.
Sprague Elec. Wks. of G.E.
Steel City Electric Co.
Western Electric Co.
Westinghouse Elec. & Mfg. Co.

Boxes, Meter and Service
General Electric Co.
Johns-Manville Inc.

Boxes, Paper
Gair Co., Robert

Boxes, Switch
Austin & Co., M. B.
Chicago Fuse & Mfg. Co.
Hart & Hegeman Mfg Co.
Johns-Pratt Co.
National Metal Molding Co.

Brass Fixture Parts
(See Fixture Parts & Accessories)

Bronzing Lacquers
(See Lacquers)

Brushes
General Electric Co.
National Carbon Co.
Westinghouse E. & M. Co.

Bushings
Hartford Machine Screw Co.
Steel City Electric Co.

Buttons and Indicators, Radiant (See Locators)

Cabinets
General Radio Corp.
Metropolitatn Elec. Mfg. Co.
Michigan Radio Corp.

Cable, Armored
Austin & Co., M. B.
General Electric Co.

Caps, Color
Betts & Betts Corp.
Reynolds Electric Co.

Cartons
Gair Co., Robert
Hinde & Dauch Paper Co.

Cash Registers
(See Store Equipment)

Castings, Die
Doehler Die Castings Co.

Castings, Iron
Gillespie Eden Corp.

Chain, Fixture
Bryant Electric Co.
Faries Mfg. Co.
Hyman, Henry
Wakefield Brass Co., F. W.
Waterbury Mfg. Co.

Chain, Pull Socket
Arrow Electric Co.
Bryant Electric Co.
Freeman Elec. Co., E. H.
Hubbell, Inc., Harvey
Wirt Co.

Chandeliers (See Fixtures, Lighting, Rigid)

Choke Coils
Acme Apparatus Co.
Coto-Coil Co.
Sleeper Radio Corp.
Westinghouse Elec. & Mfg. Co.

Christmas Tree Lighting Outfits
Betts & Betts Corp'n.
General Electric Co.
Haupt & Co.
Propp Co., M.

Cigar Lighters
Cuno Engineering Co.

Circuit Breakers
General Electric Co.
Roller-Smith Co.
Westinghouse E. & M. Co.

Clamps, Insulator
General Electric Co.
Steel City Electric Co.
Westinghouse E. & M. Co.

Cleats
Conn. Elec. & Mfg. Co.
Sears, Henry D.

Clipping Machines, Motor Driven
Shelton Electric Co.

Coils, Armature and Field
Coto-Coil Co.
Westinghouse Elec. & Mfg. Co.

Coils, Chokoe
Sleeper Radio Corp.

Conduit Fittings (See Fittings, Conduit)

Conduit, Flexible
Alphaduct Co.
American Wiremold Co.
Eastern Tube & Tool Co.
National Metal Molding Co.
Richards & Co., Geo. C.
Sprague Elec. Wks. of G.E.
Tubular Woven Fabric Co.
Western Electric Co.

Conduit, Rigid
American Wiremold Co.
Clifton Mfg. Co.
National Metal Molding Co.
Richards & Co., Geo. C.
Sprague Elec. Wks. of G.E.

Conduit, Surface
American Wiremold Co.

Conduit, Underground (Fibre)
Johns-Manville Inc.
Sprague Electric Works
Western Electric Co.

Connectors, Cord and Lamp
Beaver Mach. & Tool Co.
Bryant Elec. Co.
Cutler-Hammer Mfg. Co.
General Electric Co.
Hubbell, Inc., Harvey
Sherman Mfg. Co., H. B.
Wirt Co.

Connectors, Wire
Conn. Elec. & Mfg. Co.
Stanley & Patterson
Westinghouse E. & M. Co.

Controllers, Motor
Absolute Con-Tac-Tor Corp.
Allen-Bradley Co.
Automatic Elec. Devices Co.
Cutler-Hammer Mfg. Co., The
General Electric Co.
Westinghouse E. & M. Co.

Cooking Appliances, Electric
Weeks Mfg. Co., H. G.
Western Electric Co.
Westinghouse E. & M. Co.

Cord Connectors (See Connectors)

Cord, Heater
Belden Mfg. Co.
Berry, A. Hall
Driver-Harris Co.
General Electric Co.
Rome Wire Co.
U. S. Rubber Co.

Cord, Lamp
Belden Mfg. Co.
General Electric Co.
Indiana Rubber & Insulated Wire Co.
Rome Wire Co.
Simplex Wire & Cable Co.
Sprague Elec. Wks. of G. E.
U. S. Rubber Co.

Current Limiters
Betts & Betts Corp'n.

Current Taps
Arrow Electric Co.
Bryant Elec. Co.
Cutler-Hammer Mfg. Co.
Freeman Elec. Co., E. H.
Hart & Hegeman Mfg. Co.
Hubbell, Harvey, Inc.

Cut-outs
Arrow Electric Co.
Bryant Elec. Co.
Connecticut Elec. & Mfg. Co.
D. & W. Wire Division of G. E. Co.
Freeman Elec. Co., E. H.
General Electric Co.
Hart & Hegeman Mfg Co.
Heineman Electric Co.
Johns-Manville Inc.
Johns-Pratt Co.
Richards & Co., Geo. C.
Sears, Henry D.
Trumbull Electric Mfg. Co.

Die Castings (See Castings, Die)

Dimmers, Lamp
Ward-Leonard Electric Co.
Wirt Co.

Dishwashers, Electric
Cinderella Elec. Dishwasher Co.
Crescent Washing Mach. Co.
General Rwy. Signal Co.
Knox Motors Associates
Shank Co., Cyrus

Distributors (See Jobbers)

Drainers, Washing Machine
Lincoln Brass Works

Driers, Hair & Hand, Electric
General Electric Co.
Shelton Elec. Co.
Tornado Electric Co.

Dynamos
General Electric Co.
Robbins & Myers Co., The
Westinghouse Electric & Mfg. Co.

Electric Signs
Flexlume Sign Co.
Mercury Time Switch Co.

Enamel
Egyptian Lacquer Mfg. Co.
Technical Color & Chemical Works
Zeller Lacquer Mfg. Co.

Extinguishers, Fire
Johns-Manville Inc.

Fans, Exhaust and Ventilating
American Blower Co.
Century Electric Co.
Emerson Elec. Mfg. Co.
General Electric Co.
Kendrick & Davis Co.
National Screw & Tack Co.
Robbins & Myers Co., The
Sprague Elec. Wks. of G.E.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Fan Motors
Century Electric Co.
Emerson Elec. Mfg. Co.
General Electric Co.
Kendrick & Davis Co.
Robbins & Myers Co., The
Sprague Elec. Wks. of G.E.
Star Elec. Motor Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Farm Lighting Plants (See Plants, Light, Power)

Farm Lighting Plant Accessories
Lightolier Co.
Mercury Time Switch Co.

Financial
Coal & Iron Nat'l Bank
Republic Finance & Investment Co.

Fire Alarm Apparatus
Foote, Pierson & Co., Inc.
Holtzer Cabot Elec. Co.
Stanley & Patterson

Fittings, Conduit
American Wiremold Co.
Austin & Co., M. B.
General Electric Co.
Hart & Hegeman Mfg. Co.
Killark Elec. Mfg. Co.
National Metal Molding Co.
Sprague Elec. Wks. of G.E.
Steel City Electric Co.

Fixtures, Lighting, Adjustable
Art Craft Fixture Co.
Artistic Ltg. Fixture Corp.
Beardslee Chandelier Mfg. Co.
Duplex Lighting Wks. of G. E. Co.
Findlay Mfg. Co., Inc., Robert
Friedley Voshardt Co.
Harrison, Arthur
Holophane Glass Co.
Lightolier Co.
McLean Mfg. Co.
McPhilben Lighting Fixture Co., Inc.
Wakefield Brass Co., F. W.
Westinghouse Elec. & Mfg. Co.

Fixtures, Lighting, Rigid
Alter & Co., Harry
Art Craft Fixture Co.
Artistic Ltg. Fixture Corp.
Beardslee Chandelier Mfg. Co.
Biddle Gaumer Co.
Brascolite Co.
Crescent Art Metal Co.
Duplex Lighting Wks. of G. E. Co.
Edward Light Co.
Faries Mfg. Co.
Fibreduro, Inc.
General Gas Light Co.
Harrison, Arthur
Holophane Glass Co.
Horn & Brannen Mfg. Co.
Lightolier Co.
McLean Mfg. Co.
Moe-Bridges Co.
National X-Ray Reflector Co.
Planetlite Co., Inc.
Richards & Co., George C.
Shapiro & Aronson, Inc.
Walsh Mfg. Co., Owen
Western Electric Co.
Westinghouse Elec. & Mfg. Co.

Fixtures, Lighting, Show Cases and Windows
Beardslee Chandelier Mfg. Co.
Brascolite Co.
Denver Electrical Laboratories
Fibreduro, Inc.
Frink, Inc., I. P.
Holophane Glass Co.
McPhilben Lighting Fixture Co., Inc.
Mercury Time Switch Co.
Moe-Bridges Co.
National X-Ray Reflector Co.

Fixture Parts and Accessories
Alter & Co., Harry
Art Craft Fixture Co.
Beaver Machine & Tool Co.
Central Metal Crafts
Consolidated Metal Spinning & Stamping Co.
Elastoid Fibre Co.
Faries Mfg. Co.
Fibro Products
McPhilben Lighting Fixture Co., Inc.
Modern Wire Specialty Co.
Waterbury Button Co.
Waterbury Mfg. Co.
White Mfg. Co., J. H.

Flashlights
American Eveready Wks.
Berry, A. Hall
Hyman, Henry
National Carbon Co.
Niagara Sales Corp.

Flashers, Sign
Betts & Betts Corp'n.
Reynolds Electric Co.

Flashers, Thermostatic
Absolute Con-Tac-Tor Corp.
Betts and Betts Corp'n
Denver Electrical Laboratories

Flood Lighting (See Projectors)

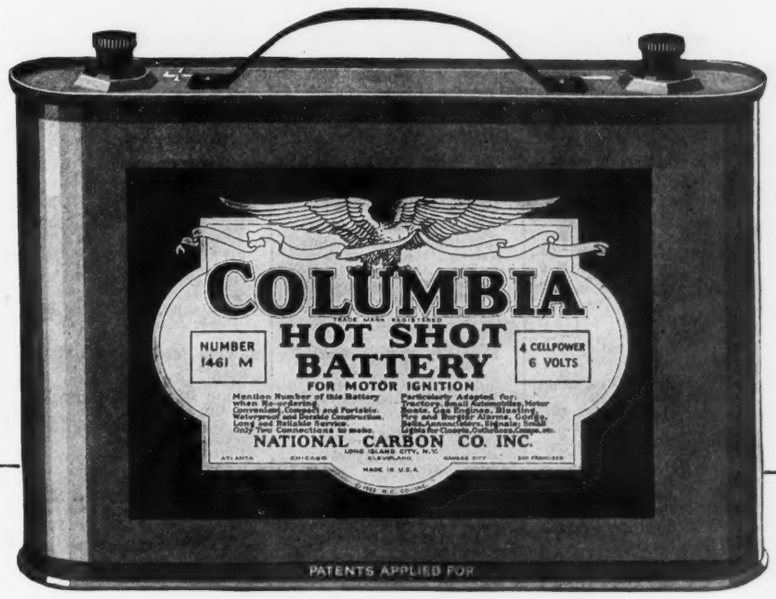
Food Mixers, Electric
Air-O-Mix Inc.
Reynolds Electric Co.

Furniture, Electrically Wired
Nichols Electric Co.

Fuses, Cartridge, Non-Refillable
Chicago Fuse Co.
Conn. Elec. & Mfg. Co.
D & W Fuse Works

(Cont. on Page 296)

—the greatest step forward in the battery industry since the invention of the original Columbia "Hot Shot"



Think of all that this Columbia "Hot Shot" *Steel Case* means to all your customers that use ignition current!

Super-Durable—constructed to withstand the roughest service conditions

Waterproof—unaffected by exposure to the elements

Unbreakable—full service and life assured through protection of the battery by the steel case

➔ *Costs No More Than Fiber Case Batteries* to trade and consumer

Note: This No. 1461 is the most popular for ignition, and is therefore the first we are making in steel. Other standard "Hot Shot" sizes will be made in steel as fast as practicable.

Columbia "Hot Shot" Ignition Batteries have always had these overwhelming advantages: They have no mechanical parts to fuss with; they yield their full ignition power while the engine is being started; wet weather does not affect them; and *now they come in the waterproof steel case* without extra cost!

Think of all it means to you in sales, profits, and good-will of your customers!

Think Steel Case—Talk Steel Case—Sell Steel Case

Your jobber will welcome your utmost sales cooperation

NATIONAL CARBON COMPANY, INC.
Long Island City, N. Y.

Atlanta Chicago Cleveland Kansas City San Francisco

Columbia Dry Batteries

—they last longer

General Electric Co.
Johns-Manville Inc.
Johns-Pratt Co.
Metropolitan Elec. Mfg. Co.
Westinghouse Electric & Mfg. Co.

Fuses, Cartridge, Refillable
Chicago Fuse Co.
D & W Fuse Works
General Electric Co.
Johns-Manville Inc.
Johns-Pratt Co.
Killark Elec. Mfg. Co.
Westinghouse Electric & Mfg. Co.

Fuses, High-Voltage
Johns-Pratt Co.

Fuse Plugs
Arrow Electric Co.
Bryant Elec. Co.
Connecticut Elec. & Mfg. Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Johns-Manville Inc.
Metropolitan Elec. Mfg. Co.

Fuse Reducers
Plainville Elec. Prod. Co.

Fuses, Plug, Non-Refillable
Arrow Elec. Co.
D & W Fuse Works
General Electric Co.
Metropolitan Elec. Mfg. Co.
Sears, Henry D.
Westinghouse Electric & Mfg. Co.

Fuses, Plug, Refillable
Betts & Betts Corp.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Glassware, Lighting
Beardslee Chandelier Mfg. Co.
Consolidated Lamp & Glass Co.
General Gas Light Co.
Holophane Glass Co.
Horn & Brannen Mfg. Co.
G. E. Co.
Lightolier Co.
Macbeth-Evans Glass Co.
Moe-Bridges Co.
National X-Ray Reflector Co.
Noe & Sons, Wm. R.
Schaffer Co., Max

Grills and Table Stoves, Electric
Westinghouse Electric & Mfg. Co.

Guy Anchors
Hubbard & Co.

Hangers, Cable & Conduit
Austin & Co., M. B.

Hardward Pole Line
Hubbard & Co.

Heater Cord (See Cord, Heater)

Heating Appliances (See Table Appliances)

Heating Devices, Electric
General Electric Co.
Weeks Mfg. Co., H. G.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Heating Pads and Blankets
Berry, A. Hall
Standard Elec. App. Co.
Wirt Co.

Horns & Sirens
General Radio Corp.

Hospital Systems
Bryant Elec. Co.
Holtzer Cabot Elec. Co.
Stanley & Patterson

Indicators, Radiant (See Locators)

Instruments, Indicating, Testing
American Eveready Works
Foote, Pierson & Co., Inc.
General Electric Co.
General Radio Co.
Roller Smith Co.
Sleeper Radio Corp.
Weston Electrical Instrument Co.
Westinghouse Elec. & Mfg. Co.

Insulating Materials
Clifton Mfg. Co.
D & Fuse Works
Diamond Holfast Sales Co., H. I.
Fibro Products Co.
Formica Insulation Corp.
General Insulate Co.
Irvington Varnish & Insulator Co.
Johns-Manville Inc.
Sleeper Radio Corp.
Waterbury Button Co.
Westinghouse Electric & Mfg. Co.

Insulation, Molded Electric
Waterbury Button Co.

Insulators
Aero Mfg. Co.
American Insulator Co.
Elastoid Fibre Co.
Formica Insulation Co.
Garfield Mfg. Co.
General Electric Co.
Hopewell Ins. & Mfg. Co.
International Insulating Co.
Johns-Manville, Inc.
Sears, Henry D.
Waterbury Button Co,

Insulators, Glass
Hemingray Glass Co.

Insulators, Porcelain
Cook Pottery Co., The
Illinois Elec. Porcelain Co.
Westinghouse Elec. & Mfg. Co.

Ironing Machines, Electric
Apex Appliance Co.
Gainaday Electric Co.
Hurley Machine Co.
Western Electric Co.

Ironing Machines, Gas Heated, Motor Driven
Apex Elec. Distrib. Co.
Gainaday Electric Co.
Hurley Machine Co.
O. K. Machine Co.

Irons, Curling, Electric
Northern Electric Co.
Westinghouse Elec. & Mfg. Co.

Irons, Electric
Gainaday Electric Co.
Tornado Electric Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.
Wise-McClung Mfg. Co.

Irons, Soldering
General Electric Co.
Hunt Lasher Co.
Westinghouse Electric & Mfg. Co.

Jobbers
Alter & Co., Harry
Carroll Elec. Co.
Doubleday-Hill Elec. Co.
Edward Light Co.
Iron City Elec. Co.
National Elec. Supp. Co.
Newark Elec. Supply Co.
Philadelphia Elec. Co., Supply Dept.
Piedmont Elec. Co.
Pruden, Frederick H.
Rasia Sales Company
Southern Electric Co.
Stewart Elec. Co., Frank H.

Kits, Tool
Klein & Sons, Mathias

Knobs, Porcelain
Connecticut Elec. & Mfg. Co.
Cook Pottery Co., The
Illinois Elec. Porcelain Co.

Laboratories, Testing
Elec'l Research Laboratories, Inc.
Electrical Testing Laboratories
Malone-Lemmon Laboratories
Underwriters Labs., Inc.

Lacquers
Egyptian Lacquer Mfg. Co.
Technical Color & Chemical Works
Zeller Lacquer Mfg. Co.

Lamp Dips & Frosting
Crown Coloring & Chemical Co.
McKay & Company
Technical Color & Chemical Co.

Lamp Guards & Locks
Bryant Elec. Co.

Lamps, Automobile
American Eveready Works

Lamps, Clamp Attaching and Extension
Biddle Gaumer Co.
Tubular Woven Fabric Co.

Lamps, Desk
Beardslee Chandelier Mfg. Co.
Faries Mfg. Co.
Frink, Inc., I. P.
Greist Mfg. Co.
Lightolier Co.
National X-Ray Reflector Co.
Shapiro & Aronson, Inc.

WHAT AND WHERE TO BUY—Continued from page 294

Lamps, Incandescent
Consolidated Elec. Lamp Co.
Edison Lamp Works
General Electric Co.
Hygrade Lamp Co.
Save Elec. Corp.
Save Sales Co.
Westinghouse Lamp Co.
Westinghouse Electric & Mfg. Co.

Lamps, Miniature
General Electric Co.
Greist Mfg. Co.
Western Electric Co.
Westinghouse Lamp Co.

Lamps, Portable
Ajax Elec. Specialty Co.
Beardslee Chandelier Mfg. Co.
Biddle Gaumer Co.
Central Metal Crafts
Classique Lamp Studios
Consolidated Lamp & Glass Co.
Faries Mfg. Co.
Fibreduro, Inc.
Friedley Voshardt Co.
Greist Mfg. Co.
Lightolier Co.
National X-Ray Reflector Co.
Noe & Sons, Wm. R.
Shapiro & Aronson, Inc.
Wirt Co.

Lighting, Decorative
Ainsworth, George
Brascolite Co.
Cassidy Co., Inc.
Consolidated Lamp & Glass Co.
Crescent Art Metal Co.
Duplex Lighting Wks. of G. E. Co.
Fibreduro, Inc.
General Electric Co.
Harrison, Arthur
Holophane Glass Co.
Lightolier Co.
Planetlite Co., Inc.
Schaffer Co., Max

Lighting Fixtures (See Fixtures)

Lighting, Industrial
Beardslee Chandelier Mfg. Co.
Brascolite Co.
Cassidy Co., Inc.
Duplex Lighting Wks. of G. E. Co.
Faries Mfg. Co.
Fibreduro, Inc.
General Electric Co.
Glaenzer Trading Corp.
General Gas Light Co.
Holophane Glass Co.
Hubbell, Inc., Harvey
Hygrade Lamp Co.
Macbeth-Evans Glass Co.
Moe-Bridges Co.
National Screw & Tack Co.
Planetlite Co., Inc.
Schaffer Co., Max
Shapiro & Aronson, Inc.
Western Electric Co.
Westinghouse Elec. & Mfg. Co.

Lighting Units
Ainsworth, George
Duplex Lighting Wks. of G. E. Co.
Edward Light Co.
Frink, Inc., I. P.
General Gas Light Co.
National X-Ray Reflector Co.
Schaffer Co., Max
Shapiro & Aronson, Inc.
Westinghouse Elec. & Mfg. Co.

Locators, Radiant
Alter & Co., Harry
Betts & Betts, Inc.

Logs, Elec. Fireplace
Universal Elec. Stage Light Co.

Loops, Radio Receiving, Indoor
Eagle Radio Co.

Marine Wiring, Fittings & Fixtures
Bryant Elec. Co.
Diamond Holfast Sales Co., H. I.
Steel City Electric Co.
Western Electric Co.

Medical Accessories
Signal Elec. Mfg. Co.

Moldings
American Wiremold Co.
General Radio Corp.
Hopewell Ins. & Mfg. Co.
International Insulating Co.
National Metal Molding Co.

Motors, A.C.
Century Electric Co
Domestic Electric Co.
Emerson Elec. Mfg. Co.
Galvin Elec. Mfg. Co.
General Electric Co
Gillespie-Eden Corp.
National Screw & Tack Co.
Reynolds Electric Co.
Robbins & Myers Co., The
Sprague Elec. Wks. of G.E.
Star Elec. Motor Co.
Sunlight Mfg. Co.
Valley Electric Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Motors, D.C.
Emerson Elec. Mfg. Co.
General Electric Co.
Gillespie-Eden Corp.
National Screw & Tack Co.
Robbins & Myers Co., The
Sprague Elec. Wks. of G.E.
Star Electric Motor Co.
Sunlight Mfg. Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Motors, Fractional H. P.
Domestic Electric Co.
Madmar Quality Co.
Ohio Electric & Controller Co.

Motors, Phonograph
General Electric Co.
Precise Mfg. Co.
Shelton Elec. Co.
Westinghouse Elec. & Mfg. Co.

Motors, Sewing Machine
General Electric Co.
Shelton Elec. Co.
Western Electric Co.
Westinghouse Elec. & Mfg. Co.

Newspaper & Magazine Advertising
Chicago Tribune, The
Cleveland Plaindealer
Good Housekeeping
Priscilla Co., The

Novelties (See Toys and Novelties)

Office Equipment, Contractor's
Flexlume Sign Co.

Packing Boxes
Gair Co., Robert
Hinde & Dauch Paper Co.

Packing Materials
Gair Co., Robert
Hinde & Dauch Paper Co

Panel-Boards (See Switchboards)

Percolators, Electric
Westinghouse Electric & Mfg. Co.

Plants, Light and Power
Goulds Mfg. Co.
Matthews Engineering Co.
Universal Motor Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Pliers
Klein & Sons, Mathias

Plugs, Attachment, and Caps
Ajax Elec. Specialty Co.
American Insulator Co.
Arrow Electric Co.
Betts Elec. Mfg. Co.
Bryant Elec. Co.
Conn. Elec. & Mfg. Co.
Cutler-Hammer Mfg. Co.
Freeman Elec. Co., E. H.
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Harvey, Inc.
Metropolitan Elec. Mfg Co.
Reynolds Electric Co.
Richards & Co., George C.
Sears, Henry D.
Trumbull Elec. Mfg. Co.

Plugs, Heater Cord
Beaver Mch. & Tool Co.
Bryant Elec. Co.

Plugs, Spark
Hartford Machine Screw Co.

Polishers and Buffers
General Electric Co.
Robbins & Myers Co., The
Valley Electric Co.
Westinghouse Elec. & Mfg. Co.

Porcelain
Cook Pottery Co., The
Illinois Elec. Porcelain Co.

Portables (See Lamps, Portable)

Projectors, Electric
General Electric Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Pull Sockets
Ajax Elec. Specialty Co.
Arrow Electric Co.
Bryant Elec. Co.
Connecticut Elec. & Mfg. Co.
Hart & Hegeman Mfg. Co.
Hubbell, Harvey, Inc.
Pass & Seymour
Sears, Henry D.
Wirt Co.

Pumps, Automobile
Hartford Mch. & Screw Co.

Pumps, Motor Driven
General Electric Co.
Goulds Mfg. Co.
Hartford Machine Screw Co.
Westinghouse Elec. & Mfg. Co.

Push Buttons
Elwood Electric Co.
General Electric Co.
Stanley & Patterson
Waterbury Button Co.
Westinghouse Elec. & Mfg. Co.

Radiators
Westinghouse Elec. & Mfg. Co.

Radio Books and Instruction
Henley Publishing Co., Norman

Radium Compound Specialties (Also see Locators)
Betts & Betts Corp.

Radio Parts and Accessories
Acme Apparatus Co.
Adams-Morgan Co.
Advance Battery Mfg. Co.
Ajax Elec. Specialty Co.
Aero Mfg. Co.
Allen-Bradley Co.
Alter & Co., Harry
American Transformer Co.
Atwater-Kent Mfg. Co.
Audiola Radio Co.
Automatic Elec. Devices Co
Belden Mfg. Co.
Betts & Betts Corp.
Brandes, Inc., C.
Bristol Co.
Circle Radio Co.
Cory & Son, Chas.
Coto-Coil Co.
Crosley Mfg. Co.
Defalco Battery Corp.
DeForest Radio Tel. & Tel. Co.
Doron Bros. Elec. Co.
Dual Tool Co.
Dubilier Condenser & Radio Corp.
Durham & Co.
E. D. Mfg. Co.
Eagle Radio Co.
Eby Mfg. Co.
Eisemann Magneto Corp.
Elastoid Fibre Co.
Elec'l Research Laboratories, Inc.
Elwood Electric Co.
Federal Tel. & Tel. Co.
Fibro Products Co.
Foote, Pierson & Co., Inc.
Fore Elec'l Mfg. Co.
Formica Insulation Corp.
Freeman Elec. Co., E. H.
Frost, Herbert H.
Galvin Elec. Mfg. Co.
General Electric Co.
General Insulate Co.
General Radio Co.
General Radio Corp.
Globe Phone Mfg. Co.
Hart & Hegeman Mfg Co.
Heineman Elec. Co.
Holtzer Cabot Elec. Co.
Hommel & Co., Ludwig
Hopewell Ins. & Mfg. Co.
Hubbard & Co.
Hudson-Ross
Hunt-Lasher Co.
Hyman & Co., Henry
International Insulating Co.
Irvington Varnish & Insulator Co.
Johns-Manville, Inc.
Johns-Pratt Co.
King Sewing Machine Co.
Klaus Radio & Elec. Co.
Lombardi Radio Mfg. Co.

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Lyons, C. S.
Magnavox Co., The
Malone-Lemmon Laboratories
Metropolitan Elec. Mfg. Co.
Metropolitan Radio Corp.
Michigan Radio Corp.
Mitchell & Co., R.
Murdock Co., W. J.
Mu Rad Laboratories, Inc.
Niagara Sales Corp.
Pacent Electric Co.
Patton-Mac Guyer Co.
Precise Mfg. Corp.
Pruden, Frederick H.
Radio Corp of America
Radio Equipment Co.
Radio Electric Co.
Radio Mfg. Co.
Rasla Sales Corp.
Remler Radio Mfg. Co.
Robinson Specialty Co.
Roller Smith Co.
Rome Wire Co.
Royal Electrical Laboratories
Scholes Radio & Mfg. Corp.
Signal Elec. Mfg. Co.
Sleeper Radio Corp.
Standard Metal Mfg. Co.
Stanley & Patterson, Inc.
Stromberg-Carlson Tel. Mfg. Co.
Telephone Book Holder Co.
Thorardson Electric Co.
True Tone Radio Mfg. Co.
Trumbull Elec. Mfg. Co.
Trumbull Vanderpoel Elec. Mfg. Co.
Union Radio Corp.
United Mfg. & Dist. Co.
United Radio Laboratories
U. S. Tool Co.
Valley Elec. Co.
V-De-Co Radio Mfg. Co.
W. E. Supply & Service Corp.
Ward Leonard Electric Co.
Waterbury Button Co.
Waterbury Mfg. Co.
Westinghouse Elec. & Mfg. Co.
Whaling & Sons Co.
Workrite Mfg. Co.
Weston Elec. Instrument Co.

Radio Receiving Sets, Complete
Adams-Morgan Co.
Aero Mfg. Co.
Audiola Radio Co.
Betts & Betts Corp.
Circle Radio Co.
Crosley Mfg. Co.
De Forest Radio Tel. & Tel. Co.
Doron Bros. Elec. Co.
Durham & Co.
E-D Manufacturing Co.
Federal Tel. & Tel. Co.
General Electric Co.
General Radio Co.
Hommel & Co., Ludwig
Hudson-Ross
Klaus Radio & Elec. Co.
Lyons, C. S.
Metropolitan Radio Corp.
Michigan Radio Corp.
Mitchell & Co., R.
Mu-Rad Laboratories, Inc.
Pruden, Frederick H.
Radio Corp of America
Radio Electric Co.
Signal Electric Mfg. Co.
Sleeper Radio Corp.
Thorardson Elec. Co.
True Tone Radio Mfg. Co.
Tuska Co., C. D.
Union Radio Co.
United Radio Laboratories
W. E. Supply & Service Corp.
Westinghouse Elec. & Mfg. Co.

Ranges, Combination
Westinghouse Elec. & Mfg. Co.

Ranges, Electric
Holtzer Cabot Elec Co.
Roper Corp., Geo. D.
Weeks Mfg. Co., H. G.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Receptacles, Base Board and Wall
Ajax Elec. Specialty Co.
Arrow Electric Co.
Conn. Elec. & Mfg. Co.
Cutler-Hammer Mfg. Co.
Freeman Elec. Co., E. H.
General Electric Co
Hart & Hegeman Mfg. Co.
Heineman Elec. Co.
Hubbell, Inc., Harvey
Manhattan Elec. Supply Co.
Metropolitan Elec. Mfg. Co.
Trumbull Elec. Mfg. Co
Western Electric Co.

Rectifiers
Automatic Elec. Devices Co
Fore Elec'l Mfg. Co.
Co.

WHAT AND WHERE TO BUY—Continued from page 296

General Electric Co.
Westinghouse Electric & Mfg. Co.

Reflectors (See Shades and Reflectors)

Resistance Units
Cutler-Hammer Mfg. Co.
General Electric Co.
Remler Radio Mfg. Co.
Ward Leonard Electric Co.
Westinghouse Electric & Mfg. Co.
Wirt Co.

Rheostats
Acme Apparatus Co.
Adams-Morgan Co.
Allen-Bradley Co.
Automatic Elec. Devices Co
Crosley Mfg. Co.
Cutler-Hammer Mfg. Co
Fibreduro, Inc.
General Electric Co.
Malone-Lemmon Laboratories
Michigan Radio Corp.
Precise Mfg. Co.
Remler Radio Mfg. Co.
Scholes Radio & Mfg. Corp.
Sleeper Radio Corp.
Westinghouse Electric & Mfg. Co
Workrite Mfg. Co.

Rolls, Wringer
American Wringer Co.

Rosettes
Arrow Elec. Co.
Conn. Elec. & Mfg. Co.
Freeman Elec. Co., E. H.
Hart & Hegeman Mfg Co.
Sears, Henry D.

Searchlights (See Projectors Electric)

Sectional Cabinets
McLean Mfg. Co., W. B.

Sewing Machines, Electric
King Sewing Machine Co.
Western Electric Co.

Shade Accessories, Lamp
Glaenzer Trading Corp.
Holophane Glass Co.
Modern Wire Specialty Co.
Noe & Sons, Wm. R.
Waterbury Mfg. Co.

Shade Holders
Arrow Elec. Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Holophane Glass Co.
Hubbell, Harvey, Inc.
Hyman, Henry
National Screw & Tack Co.
National X-Ray Reflector Co.
Noe & Sons, Wm. R.
Sears, Henry D.

Shades and Reflectors
Beardslee Chandelier Mfg Co.
Consolidated Lamp & Glass Co.
Duplex Lighting Wks. of G. E. Co.
Faries Mfg. Co.
General Electric Co
General Gas Light Co.
Holophane Glass Co.
Hubbell, Harvey, Inc
Macbeth-Evans Glass Co.
National Screw & Tack Co.
Western Electric Co
Westinghouse Elec. & Mfg. Co.

Shades, Silk & Parchment
Schaffer Co., Max

Shipping Cases, Corrugated and Fibre
Gair Co., Robert

Signal Systems
Bryant Elec. Co.
Denver Electric Laboratories
Holtzer Cabot Elec. Co.
Signal Mfg. Co.

Signs, Electric
Eastern Laboratories, Inc.
Flexlume Sign Co.
Frink, Inc., I. P.

Soap, Washing Machine
Hurley Machine Co.

Sockets and Receptacles (See also Pull Sockets)
Adams-Morgan Co.
Ajax Elec. Specialty Co.
Arrow Electric Co.
Conn. Elec. & Mfg. Co.
Coto-Coil Co.
Crosley Mfg. Co.
Cutler-Hammer Mfg. Co.
Freeman Elec. Co., E. H.
General Electric Co.
General Radio Corp.
Hart & Hegeman Mfg Co.
Hubbell, Harvey, Inc.
Hyman, Henry
Metropolitan Elec. Mfg. Co.
Sears, Henry D.
Stanley & Patterson
Waterbury Button Co.

Spraying Equipment, Electrically Driven
Decora Mfg. Co.

Stage Lighting Apparatus
Cutler-Hammer Mfg. Co.
Frink, Inc., I. P.
General Electric Co.
National X-Ray Reflector Co.
Universal Electric Stage Lighting Co.

Stampings, Brass, etc.
Art Craft Fixture Co.
Beaver Mach. & Tool Co.
Consolidated Elec. Spinning & Stamping Co.
O. K. Machine Co.
Patton-Mac Guyer Co.
Waterbury Button Co.
Waterbury Mfg. Co.

Starters, Motor
Cuter-Hammer Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Store Equipment
Flexlume Sign Co.
Kawneer Company, The
McLean Mfg. Co., W. B.
Mercury Time Switch Co.

Store Fixtures (See Fixtures, Lighting, Show Case and Window)

Store Fronts, Copper
Kawneer Company, The

Stoves, Electric
Roper Corp., Geo. D.
Weeks Mfg. Co., H. G.
Westinghouse Electric & Mfg. Co.

Stoves, Table (See Grills and Table Stoves)

Substations, Out Door
General Electric Co.
Westinghouse Elec. & Mfg. Co.

Supplies, Wiring, Electric
Alter & Co., Harry
Arrow Electric Co.
Austin & Co., M. B.
Chicago Fuse Mfg. Co.
General Electric Co
Hart & Hegeman Mfg. Co.
Hunt-Lasher Co.
Johns-Manville Co., H. W
Rome Wire Co.
Western Electric Co.

Switchboards
Allen-Bradley Co.
Bryant Elec. Co.
Federal Tel. & Tel. Co.
General Electric Co
Metropolitan Elec. Mfg. Co.
Penn Electrical & Mfg. Co.
Plainville Elec. Prod. Co.
Sprague Elec. Wks. of G.E
Trumbull Electric Mfg. Co
Westinghouse Electric & Mfg. Co.

Switchboard Materials
Formica Insulation Co.
Johns-Manville, Inc
Plainville Elec. Prod. Co.
Roller-Smith Co.

Switches, Canopy
Beaver Mach. & Tool Co

Switches, Clock Operated
Berry, A. Hall
Campbell Electric Co.
Mercury Time Switch Co.

Switches, Coupling
Beaver Mach. & Tool Co.

Switches, Disconnect
General Electric Co.
Metropolitan Elec. Mfg. Co.
Westinghouse Elec. & Mfg. Co.

Switches, Feed-Thru
Beaver Mach. & Tool Co.

Switches, Knife
Berry, A. Hall
Conn. Elec. & Mfg. Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Metropolitan Elec. Mfg. Co.
Westinghouse Elec. & Mfg. Co.

Switches, Pendant
Beaver Mach. & Tool Co.

Switches, Plug
Beaver Mach. & Tool Co.

Switches, Pressure
Absolute Con-Tac-Tor Corp.

Switches, Push Button and Snap
Arrow Electric Co.
Beaver Mch. & Tool Co.
Connecticut Elec. & Mfg. Co.
Cutler-Hammer Mfg. Co.
General Electric Co.
Hart & Hegeman Mfg. Co.
Hubbell, Harvey, Inc.
Metropolitan Elec. Mfg. Co.
Sears, Henry D.
Trumbull Electric Mfg. Co.
Westinghouse Electric & Mfg. Co.

Switches, Safety
Allen-Bradley Co.
Connecticut Elec. & Mfg. Co.
General Electric Co.
Heineman Elec. Co.
Johns-Manville, Inc.
Johns-Pratt Co.
Metropolitan Elec. Mfg. Co.
Trumbull Electric Mfg. Co.
Westinghouse Elec. & Mfg. Co.

Switches, Thermostat
Absolute Con-Tac-Tor Corp.

Switches, Time
Campbell Electric Co.
General Electric Co.
Mercury Time Switch Co.

Table Appliances, Electric
Air-O-Mix, Inc.
Nichols Electric Furniture Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co

Tape and Cloth Insulating
Appleton Rubber Co.
Clifton Mfg. Co.
D & W Fuse Works
Diamond Holfast Sales Co., H. L.
Johns-Manville Inc.
U. S. Rubber Co
Westinghouse Electric & Mfg. Co.

Telephones
Adams Morgan Co
Eisemann Magneto Corp.
Elwood Electric Co.
Federal Tel. & Tel. Co.
Holtzer Cabot Electric Co
Murdock Co., Wm. J.
Roller Smith Mfg. Co.
Royal Electrical Laboratories
Stanley & Patterson
Stromberg-Carlson Tel. Mfg. Co.
Telephone Book Holder Co.
True Tone Radio Mfg. Co.

Testing Apparatus
Acme Apparatus Co.
General Radio Co.

Testing Devices, Meter
Johns-Manville, Inc.
Johns-Pratt Co.
Weston Electrical Instrument Co.
Westinghouse Elec. & Mfg. Co.

Testing Laboratories (See Laboratories, Testing)

Theater Apparatus, Electric
Cutler-Hammer Mfg. Co.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Thermostats
Absolute Con-Tac-Tor Corp.

Toasters, Electric
Western Electric Co.
Westinghouse Electric & Mfg. Co
Williams & Co., J. H.

Tools, Wiring
Austin & Co., M. B.
Hykon Mfg. Co
Klein & Sons, Mathias
Martin & Sons, H. P.
Peerblow Mfg. Co.
Western Electric Co.
Westinghouse Electric & Mfg. Co.

Torches, Blow, Gasoline, Kerosene and Alcohol
Hunt-Lasher Co.
Klein & Sons, Mathias
Peerblow Mfg. Co.

Toys and Novelties, Electric
Betts & Betts Corp.
Fibreduro, Inc.
Glaenzer Trading Corp.
Hugo Mfg. Co., John
Madmar Quality Co.

Transformers, Bell Ringing
Betts & Betts Corp'n.
General Electric Co.
Westinghouse Electric & Mfg. Co.

Transformers, General
Acme Apparatus Co.
American Transformer Co.
Betts & Betts, Inc.
Crosley Mfg. Co.
Eisemann-Magneto Corp.
General Electric Co
Killark Elec. Mfg. Co.
Mu-Rad Laboratories, Inc.
Rasla Sales Corp.
Westinghouse Electric & Mfg. Co.

Vacuum Cleaners, Electric
Apex Electrical Distributing Co.
Airway Elec. Appliance Corp.
Birtman Elec. Co.
Clements Mfg. Co.
Electric Vacuum Cleaner
Eureka Vacuum Cleaner Co.
Gainaday Electric Co.
Hoover Suction Sweeper Co.
O. K. Machine Co.
Philadelphia Elec. Co., Supply Dept.
Pneuvac Company
Ramey Mfg Co.
Sunshine Sales Co.
Torrington Co., The
United Electric Co.
Western Electric Co.
Wise-McClung Mfg. Co.

Varnishes, Insulating
Technical Color & Chemical Works

Ventilating Apparatus & Systems
American Blower Co.

Vibrators, Electric
Shelton Elec. Co.
Western Electric Co.

Violet Ray Specialties
Shelton Elec. Co.

Vises, Pipe
Martin & Sons, H. P.
Williams & Co., J. H.

Wall Receptacles (See Receptacles — Base Board and Wall)

Washing Compounds & Soaps
Hurley Machine Co.

Washing Machines, Clothes, Electric
Almetal Mfg. Co.
Apex Appliance Co.
Apex Electrical Distributing Co.
Automatic Electric Washer Co.
Berthold Elec. Mfg. Co.
Coffield Washer Co., The
Foote-Burt Co.
Gainaday Electric Co.
General Railway Signal Co.
Getz Power & Washer Co.
Gillespie Eden Corp.
Haag Bros. Co.
Hurley Machine Co.
Maytag Co.
Meadows Mfg. Co.
Nineteen Hundred Washer Co.
Sunny-Line App. Co.
Western Electric Co.
White Lily Mfg. Co.

Water Heaters, Electric
Cutler-Hammer Mfg. Co.
Weeks Mfg Co., H. G.
Westinghouse Elec. & Mfg. Co.

Water Supply Systems, Electric
Goulds Mfg. Co
Westinghouse Elec. & Mfg. Co.

Welding and Cutting Apparatus, Electric
General Electric Co.

Wire Electric Resistance
Driver-Harris Co.
Hoskins Mfg. Co.

Wireless Apparatus (See Radio Parts and Accessories, also Radio Receiving Sets, Complete)

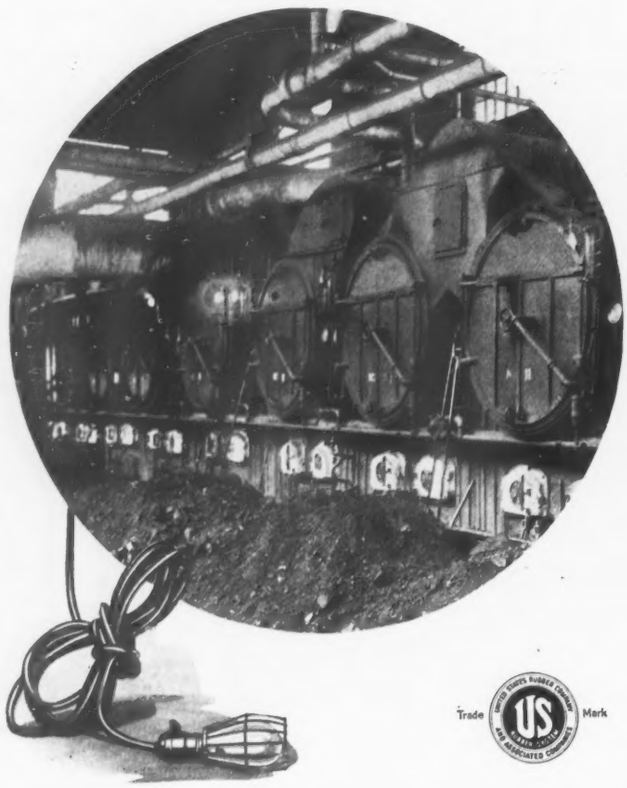
Wire, Magnet
Chicago Fuse Mfg. Co.
Rome Wire Co.

Wire Shade Frames
Modern Wire Specialty Co.

Wire and Cable
A. A. Wire Co.
Appleton Rubber Co.
Atlantic Insulated Wire & Cable Co.
Belden Mfg. Co.
Eastern Tube & Tool Co.
General Electric Co.
Indiana Rubber Insulated Wire Co.
National Metal Molding Co.
Rome Wire Co.
Simplex Wire & Cable Co.
Sleeper Radio Corp.
Sprague Elec. Wks. of G.E.
Tubular Woven Fabric Co.
U. S. Rubber Co.
Western Electric Co.

Wrenches
Williams & Co., J. H.

Wringers, Clothes
American Wringer Co.
Nineteen Hundrer Washer Co.
Western Electric Co.



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